

Executive Ability

Executive Ability

Its Discovery and Development

by

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Foreword

Because the reception given the original edition of this book far exceeded their most optimistic hopes, the authors and publishers have felt encouraged to present a revised and enlarged edition. In it the functions of the executive are fully defined and procedures for discovering and developing executive ability are set forth. Although many of the chapters have been completely rewritten and new ones added, the basic philosophy of the book has not changed. Therefore, the foreword to the first edition is being retained as an introduction to this, the second edition.

* * * * *

In the new industrial order which is emerging from rapidly changing political, social, and economic conditions the need for executive ability is clearly evident. What the future holds for all of us depends in a large measure on the intelligence, breadth of vision, and leadership of those in executive positions. What is to be the future plan of social control among civilized nations is, at the moment, very uncertain; but regardless of future economic philosophies, executive ability will be needed. To discover and develop executive ability will be tasks of major importance in the new social order.

For more than a hundred years industrial enterprise has moved forward in America. Temporary periods of readjustment have been followed by periods of vigorous expansion and growth. Early periods of expansion were made possible by the discovery and exploitation of natural resources. Successive periods of prosperity were founded upon the distribution of profits derived from increased efficiency of labor, technological improvements, and the broadening of markets. We cannot bring about a new era of industrial progress by applying old formulas. Only through creative management of natural resources, labor, technology, and

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markets can we expect to move forward. Creative management requires superior executive ability.

The pioneer industrial executive was a colorful personality who attracted attention through his speculative foresight and sheer audacity. The beginning of the present century brought a different type of executive—one who could plan, systematize, co-ordinate, and delegate functions of management. The formation of large corporations brought a need for broader knowledge of the principles of management. To meet this need organizations primarily concerned with the fostering of group interest in management were established. The dissemination of knowledge from such sources has made management less dependent on procedures evolved by rule of thumb and shrewd guess. But the problems involved in the selection and training of men to perform executive duties have received insufficient attention.

It was with the hope that the nature of executive ability might be more clearly indicated that the present volume was undertaken. While many essential facts still remain to be determined, the main problems have been defined and objective techniques for the study of executive ability have been devised. Experimental evidence, past and present practices, economic theory, psychological principles, and tenets of social philosophy—as they apply to the executive problem—have been examined. From the study of these sources practical procedures for use in the selection of men for executive positions, training methods to be used in grooming men for executive functions, and plans for self-development have been formulated.

The information presented on a broad range of topics deals with problems confronting those who are executives, those who aspire to be executives, those who must select and promote men, and those who are training men to assume directive responsibilities. In preparing various sections of the book the authors have tried to answer questions which are frequently asked by young men who wish to make the most of their abilities, and by persons

FOREWORD

whose work requires a knowledge of executive functions, vocational counselors, personnel officers, and supervisors of employee training courses. Teachers of applied psychology, business administration, and industrial management courses will find the book useful both as a basic textbook and as a reference volume for supplementary reading assignments. The general reader wishing to understand better the social aspects of executiveship will find the presentation sufficiently non-technical to challenge his interest.

Credit has been given in the body of the text to earlier investigators whose work has been drawn on directly; but we feel that we should also express our indebtedness to numerous others—our predecessors and co-workers—whose findings, although not directly quoted, have suggested procedures and otherwise aided in the verification of many of our conclusions. Thanks are rendered to those publishers, listed on page 521, who have granted permission to reproduce certain materials from their publications. Sources of these materials are cited in footnotes at the point of quotation.

Pittsburgh, Pennsylvania

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Executive Ability

CHAPTER ONE

The Executive Problem

"PROBLEMS OF HUMAN ENGINEERING WILL RECEIVE THE SAME GENIUS the last century gave to engineering in more material form." When the late Thomas A. Edison made that statement he expressed an opinion which has been justified by events of recent years. A vast amount of study and research is being devoted to human problems in industry; and, although "human engineering" is still little more than rhetorical allusion, it is now possible to apply psychological principles with reasonable accuracy to the solution of problems of employee selection, classification, training, and supervision. However, insufficient attention has been paid to problems of executive ability and responsibility. Neglect of these problems has created many difficult situations in industry, because the need for executive training is greater today than it has ever been. It is for the purpose of reporting and co-ordinating the best available information on the qualities necessary for proper performance in executive positions that the present volume has been prepared.

GENERAL ANALYSIS OF THE EXECUTIVE PROBLEM NEEDED

Most outstanding executives have risen to positions of importance because they possessed the characteristics necessary to meet unusual situations. Luck and chance have played an important part in the rise to political, social, and commercial prominence of men possessing ability to act in those situations calling for executive capacity. This will always be true, hence there is probably no need to concern ourselves here with the question of selection

and development of top-ranking executives. However, the number of subordinate positions in business and industry requiring the exercise of executive ability has increased as commercial life has become more complex. Those responsible for management are constantly confronted with the necessity of assigning executive responsibilities to others. A careful examination of the qualities of candidates for such positions must be made and those who are chosen must meet certain specifications, otherwise they cannot render the service for which they are chosen. The part played by chance in the discovery and development of executive ability has been unduly prominent in the past, because personal opinion, intuitive groping, and other forms of subjective rationalization have been trusted to solve problems relating to executive control. It is now widely recognized that more objective methods of selection, training, and direction of executives must be applied if management is to correct what is, admittedly, one of its greatest weaknesses. Presentation of the major qualities which should be included in specifications for potential executives is one of the purposes of this book.

America has been described as the land of opportunity. The justification of this description has been more clearly indicated in the past quarter of a century than ever before in the nation's history. Men of ability have moved forward in spite of unsettled economic conditions; more than any other talent, executive ability has been recognized and rewarded. While it is not desirable for every young man planning his career to aspire to the attainment of a position of executive responsibility, those who are potentially capable of carrying on work in industrial administration and supervision should seek opportunities to utilize their abilities. It is not the purpose of this book to lead every person who studies it to believe that he possesses executive qualifications; rather it is the purpose to encourage those who possess such qualifications to further develop them and to discourage those who do not show

such natural inclinations from attempting to develop executive talents.

In dealing with factors so varied and complex as those herein treated, it has been necessary to re-interpret and combine the results of numerous investigators. Occasionally it has been necessary to appeal to general principles of economics and psychology where data of a specific nature were lacking. For this the authors offer neither defense nor apology. If some solutions to problems appear to the reader to be more theoretical than factual it is because a more statistically demonstrable solution could not be found. Some assumptions contained in the body of the text are admittedly open to question. It is these debatable questions which should show the way to much-needed research. Many of these are of such paramount importance that industry can ill afford to delay their investigation. They stand as an open challenge to the boasted efficiency of management in American industry.

In summary it may be stated that a clearer definition of executive ability and a more concrete description of its occurrence and functions will serve the following purposes:

1. Bring about more objective selection and training of men for executive positions in business and industry and lay the groundwork for further investigations along lines suggested by present evidence.
2. Be of value to those charged with executive responsibility by aiding them to check their weaknesses and improve their efficiency.
3. Aid the ambitious young man in the formulation of plans for self-discovery and self-development which will make possible the exercise of executive functions demanded by current opportunities.
4. Make possible more judicious arrangements of curricula by institutions preparing men for executive positions.

SOCIAL IMPORTANCE OF EXECUTIVE ABILITY

The discovery of executive ability is not restricted in its importance to business organizations which wish to make use of executive talents or to the individual who wishes to earn a livelihood by developing and marketing those talents. The discovery and development of executive ability has high social significance. Numerous critical problems arise in every social order; our present society is no exception to this easily observable fact. Highly specialized research and careful analytical thinking are needed to contribute factual material and inspirational guidance for the solution of these problems. Yet the information necessary to solve social problems is valueless unless persons are available who can initiate, direct, and control social action. Social problems cannot be solved by the mere discovery of social and economic ills, nor can they be solved by the mere statement of the necessary correctives for those ills. Final solution of social problems, like the solution of business problems, must rest in the hands of people who know how to get things done, who know how to exercise executive ability.

Today there is a vast amount of information on practically every social problem. We know with reasonable accuracy the causes of unemployment and depression. Indeed, we even know the causes of war. But the world seems to have been lacking in men who could tackle the problems of unemployment, depression, and maintenance of peace in sufficient numbers and with sufficient ability and vigor to solve these problems. Solutions to such problems cannot be brought about by one man nor a small group of men. They must have the assistance and support of highly competent men in subordinate executive positions. World conditions necessitate the development of men with executive capacity for positions of social responsibility in public office. A more definitive and clear-cut understanding of what it is that constitutes executive ability will not prove to be a cure-all for social ills, but

no amount of social planning will ever become effective until it is put into operation by competent administrators.

Many problems of public relations in business can be traced to the fact that major executives have failed to recognize the need for administrative ability among supervisory employees. No amount of skill, cleverness, and forcefulness on the part of top-ranking executives can correct weaknesses which develop as a result of lack of ability in men in subordinate positions. It is quite possible for the major executives of an industrial concern to have a clear conception of equitable relations between management and labor and to have honest intentions of promoting such relationships. Yet these major executives do not have contact with employees in general. Such contact is limited to supervisors, such as foremen, department heads, and other administrative assistants. If the administrative assistants are not able to carry out the philosophy and industrial relations principles of the higher ranking executives, industrial conflicts arise. Undoubtedly much of the industrial unrest, strife, and conflict which has been evident in the past has grown out of improper employee relations chargeable to administrative assistants. This has happened in many instances because the intent of management was not carried out by those men representing management who were closely associated with workers carrying on the productive tasks of the organization. When leaders in industrial and governmental activities more fully comprehend the social importance of administrative responsibilities, and when they learn to apply better standards in choosing subordinates to whom they delegate responsibility and administrative power in minor matters, the stage will be set for making more rapid progress in the solution of many of the problems relating to human welfare. This book emphasizes executive functions in a democracy. Under a totalitarian state, force takes the place of right, and subservience to the dictator, the place of competence. A later chapter deals with this problem in more detail.

Industry has solved many of its major mechanical problems; productive capacity has reached levels hitherto believed impossible. Industry has also solved many of its man-power problems by mechanization and has reduced, but not wholly eliminated, the need for high degrees of skill. However, it is not possible to mechanize the control of man-power. Human beings are still human beings regardless of the level at which they work; therefore, there must be direction and co-ordination of the human element in industry. Not until more objective methods of selection, training, and direction of men entrusted with the supervision of work of others are developed can the problem of executive ability in business and industry be adequately solved.

WHAT IS EXECUTIVE ABILITY?

Varying degrees of executive ability are required in the large variety of positions involving administrative and supervisory responsibility. Hence it is difficult to define clearly the term, executive ability, in a manner which will satisfy all requirements. Furthermore, a definition is only a starting point for description and discussion. A more or less arbitrary definition of full executive responsibility would read as follows: *An executive is a person who is responsible for the efforts of others, makes decisions on questions both as to policy and practice, and exercises authority in seeing that decisions are carried out.*

A rigid application of this definition would eliminate many persons associated with modern industrial corporations. For example, a foreman is responsible for the efforts of others but usually is not permitted to make decisions involving policies and procedures. On the other hand, members of the board of directors decide policies but do not assume responsibility for the effort of others in carrying out the policies. It is clear, therefore, that men in positions of responsibility exercise varying degrees of executive functions.

There are men in every organization who might be accepted as executives in the fullest sense of our definition. There are others who must discharge executive functions in a more specialized or limited sense. Major executives deal with larger and more general problems; minor executives deal with smaller units of the organization and must give a certain amount of attention to routine details. Salesmen and technical men, in their routine functions, do not exercise executive ability, but may be assigned special responsibilities which require executive ability. The specialized qualities required of men in different administrative positions in large corporations vary to a considerable degree, yet many qualities in common are exercised in discharging executive responsibilities. This is especially true in line organization, since one sphere of executive responsibility may be the training ground for a position involving greater responsibility.

It is frequently possible for a man to succeed in a major executive position even though he does not possess all of the qualities set forth in our definition. He may be keenly analytical and have sufficient insight to delegate responsibility to others when he himself does not possess all of the personal qualities necessary to discharge responsibilities inherent in his position. In such instances, however, the executive must be able to select men to carry on important duties entrusted to them, and he must be able to judge the results attained. In fact, it is becoming more clearly recognized that the ability to delegate responsibility and choose associates who can assume those responsibilities is one of the primary qualifications of a successful administrator.

The term executive has been quite generally used as the proper designation for "those grouped reasonably near the pivotal point between stockholders and workmen." Such a definition makes possible the inclusion of members of the board of directors, but would eliminate many department heads. An executive has also been defined as "one directly responsible for the execution of work performed by others." Such a definition would include foremen

and gang bosses who possess no discretionary power, but would exclude the president of many companies. Only the broad definition above appears to be comprehensive enough to cover fully the functions of executive capacity, and that definition should be applied with a clear recognition that there are spheres of executive action.

EXECUTIVE ABILITY AND LEADERSHIP

The terms "leader" and "executive" are often used synonymously. This is an unfortunate confusion of terms. Unquestionably executives do have, to a marked degree, the qualities of leadership, yet some of the world's most successful executives have been lacking in ability to become great leaders, and many leaders have shown no evidence of executive capacity. Leadership is often associated with the ability to influence men and secure action through emotional appeals rather than through judicious exercise of authority. Leadership does not always imply the making of wise decisions or the proper use of power in influencing men. Gandhi is an outstanding leader who lacks executive ability; Andrew Jackson was a good executive but a failure as a leader; Theodore Roosevelt succeeded outstandingly both as a leader and as an executive; again, Andrew W. Mellon succeeded as an executive though he lacked any marked capacity for leadership.

A brief study of the successes and failures of prominent men whose names are in daily use will clearly indicate that leadership is a great asset to executives, but it will also reveal the fact that a leader, particularly the demagogue who capitalizes on human weaknesses, is not necessarily an outstanding executive. An executive who lacks those personal qualities which instantly secure whole-hearted response from subordinates may be considered a failure as a leader, but if he recognizes this shortcoming and selects subordinates who have those qualities of leadership necessary to carry out his plans, he still may be successful as an executive.

EXECUTIVE ACTIVITIES

The duties performed by executives vary from company to company and from individual to individual. A chronological table of events occurring in a day in the life of an executive would be a highly individual pattern. Several investigations have been made to determine the amount of time spent on various functions by men in positions of executive responsibility. Three facts of outstanding significance have been gained from such investigations. First, it is evident that more is accomplished in a business day if a schedule is adhered to (with occasional variations) than if a random plan of action is followed. Second, it is fairly evident that mid-morning hours are most frequently used for making important decisions. Third, there seems to be a growing tendency for executives to arrive at decisions through conferences with others; hence, a fair share of the working day of an executive is spent in discussing special problems with individuals or groups within the company.

One investigation of the amount of time devoted to various duties for 350 company presidents revealed the following averages:

TABLE I¹

	Percentage of time	In terms of an 8-hour day
Conferences (in the company or outside)....	24.2	2
Personal inspection of business operations.....	15.3	1½
Answering mail	13.2	1
Other business activities	13.6	1
Examining reports	9.1	¾
Business reading	9.0	¾
Planning new policies	8.5	¾
Inspection of customer's condition ..	7.1	½

Most executives insist that their duties and responsibilities cannot be charted on the basis of an eight-hour day, for many of them devote considerably more than that amount of time to the problems relating to their special responsibilities. Many state that

¹ *System, The Magazine of Business*, September, 1923. pp. 274-276.

thought and study is devoted to problems in odd moments when they are at home or elsewhere away from the job, and that decisions are sometimes made under unusual circumstances. Some carry memorandum books and note pads in their pockets on which observations are jotted while riding to and from work, upon suddenly awaking at four o'clock in the morning, or while enduring the boredom of social functions. Be that as it may, the time devoted to each type of duty varies with the position of the executive in a given company, as well as with the plan of personnel organization of the company; however, the classes of duties indicated above appear to be representative of executives in general. A casual study of these duties suggests the nature of executive functions in modern business structure. The traits and capacities necessary for successful discharge of these duties may be said to constitute executive ability.

Executive duties and responsibilities are so distinctly different from those characteristic of others in a business organization who follow more or less fixed schedules and attend to routine tasks that it is difficult for others to understand the exact nature of executive work. This frequently causes persons who are not familiar with executive work to aspire to executive assignments because, on the surface, high rewards appear to be paid for comparatively little effort. This apparent lack of effort which characterizes some successful executives is, in reality, a technique for conserving energy. A comparatively simple decision may require the expenditure of a considerable amount of energy in thoughtful analysis. The seeming ease with which the decision is made is often misleading because the problem has been anticipated and a judgment formed in advance. There are, therefore, many phases of executive work that are not directly revealed by the executive action of the moment. The ability to arrive at decisions calmly, quickly, and with better than average accuracy is, in fact, one of the essential characteristics of executive functioning.

Since it is necessary for an executive to retain control of his time, it is true that many apparently "busy" executives appear to have greater freedom in the distribution of their time and efforts than anyone else in an organization. That is possible only because one aspect of executive ability is a special talent for delegating responsibility. The delegation of the responsibility, however, requires careful follow-up when and where circumstances demand. A rigid schedule makes it impossible for attention to be given to problems at opportune times. Indeed, flexibility in the program and nature of executive action is indispensable.

Because of relative freedom from routine duties, and because executive duties differ from those of others, doubt is sometimes expressed as to the contribution that an executive makes to the smooth operation of a business enterprise. Removal of a capable executive, however, usually reveals quickly the importance of that extra something which he contributes. Some executives resent the apparent feeling that their contribution to the operation of a business or industrial organization is small, and as a form of self-defense engage in activities that others might well be doing. This is a sign of weakness rather than strength. Occasionally an executive responds to the assumption that he is not a very busy man by frankly stating that "others do all the work and I get all the credit." This is probably carrying humility too far, but a certain amount of humility often creates favor for a person in an executive position.

In candid conversation with each other, executives sometimes engage in a mild form of self-pity and become slightly whimsical in referring to their individual contributions. The following statement, which first appeared in the *London Financial News*, is probably the most elaborate expression of good-natured resentment against the common belief that executives are ornamental.

As everybody knows, an executive has practically nothing to *do*—that is, nothing to do except: to decide what is to be done; to tell somebody to do it, to listen to reasons why it should not be done, or why it should be

done by somebody else, or why it should be done in a different way; to follow up to see if the thing has been done; to inquire why it has not been done; to follow up a second time; to discover that it has been done, but done incorrectly; to conclude that as long as it has been done it may as well be left as it is; to consider how much simpler and better it would have been if he had done it himself in the first place, but to realize that such an idea would strike at the very foundation of the belief of all employees that an executive has nothing to do.

EXECUTIVES, PAST AND PRESENT

The basic abilities upon which executive capacity depends have been possessed by men in all periods of history; but these abilities have not always been called into play to the same extent by the circumstances of the times. Duties of executives have changed as the social order has changed. The tyrant and autocrat who succeeded a generation ago is not tolerated in industry today. Imagine the amazement which would be evidenced by a captain of industry of the "mailed-fist type" of a generation ago if he were appraised of the fact that many modern executives spend more than one-fourth of their time in consulting other men in their organizations concerning the conduct of business. Imagine the still greater amazement which would be shown if a typical industrial leader of the past were informed that he must deal with such modern industrial relations techniques as collective bargaining, grievance hearings, and arbitration proceedings. Death by apoplexy might be the result if E. H. Harriman were to return to the world and be told that a labor-management committee had been established to co-operate with him in the operation of the Union Pacific system which he controlled in the late 90's. Executives of the Harriman type were autocratic and transacted business through the power of enforced authority. Typical of such men was Mr. Harriman's reply that, "I don't want anything on this railroad that I cannot control," to a request that the social service organization be permitted to erect buildings at terminals in which accommodations, such as sleeping quarters,

rest rooms, and recreational facilities, would be provided for his employees.

A thumb-nail sketch of the type of personal characteristics of great executives of an earlier period is provided by Clarence J. Hicks, in his challenging book, *My Life in Industrial Relations*, in the description of his experiences with James J. Hill.

Another insight into the executive mind of those days came to me in my single contact with James J. Hill. My help this time came from Cyrus H. McCormick, who volunteered to arrange an appointment and accompany me to St. Paul in order to secure authorization to extend the railroad Y.M.C.A. along the lines of the Great Northern Railroad. The appointment stated the day, but no hour. Mr. McCormick and I reached Mr. Hill's office in the morning, but found to our dismay that, while the appointment was reserved, there was no telling when Mr. Hill would appear at his office. We were advised that Mr. Hill's office hours were very irregular, that frequently he did not appear until late afternoon, with the result that officials and staff might have to work until late into the night. Since the secretary was afraid to phone Mr. Hill as to when he might arrive at the office, we were advised to come back in the afternoon. We returned at three. At five, Mr. Hill appeared and we were immediately ushered into his office.

The "empire builder" seemed greatly interested in our proposal. At about six o'clock he sent for his general manager and his son, Lewis Hill, then a vice-president. The conference lasted until eight, and everything seemed progressing favorably. Mr. Hill thoroughly approved of the work being done by the Y.M.C.A. and said, "I am glad that you are going to have some Bible classes. I hope you will preach hell fire and damnation to these men, because that is what all of us need to keep us straight."

When Mr. McCormick and I left in time to catch the sleeper for Chicago, we felt we had obtained the backing of the road in erecting buildings and establishing our work among the thousands of miles of Great Northern. We discovered after correspondence, however, that the great executive was not ready to proceed, and eventually the whole matter was dropped. After a day and an evening in Mr. Hill's office, we discovered what one-man control meant. ²

² Hicks, Clarence J. *My Life in Industrial Relations*. Harper and Brothers, 1941. pp. 24-26.

In earlier days, most industrial plants were of limited size and were managed by the owner. Undoubtedly the possession of executive ability on the part of the owner bore a relation to the success or failure of the enterprise, but the existence or absence of this ability was seldom given serious consideration. Usually some relative or employee assumed the responsibility of managing at the owner's death, or else the company passed into other hands. The development of corporate forms of ownership has changed this condition; now between eighty and ninety percent of industrial products are manufactured by corporations rather than by privately owned and managed establishments. Management by achieved or inherited ownership has given way to management by selection.

The pioneer industrial executive was a colorful personality who attracted attention and owed much of his success to keen foresight and sheer audacity. The present century has brought a different type of executive—one who can plan, direct, co-ordinate, and delegate functions of management. The formation of large corporations has brought a need for broader knowledge of the principles of management. To meet this need such organizations as the Society for Advancement of Management, the American Management Association, the National Industrial Conference Board, and various personnel research associations have been established. Facts and principles made available from such sources have made management less dependent upon mere chance and shrewd guess. Executive techniques have been carefully developed and tested and problems involved in selection and training of men to perform executive duties have begun to receive more attention.

In the past, men found in executive positions were frequently individuals whose formal schooling was so small in amount as to be a fact worthy of boast. The self-made man was the man of the hour, and tribute must be paid to such men as Andrew Carnegie who were able to educate themselves despite inadequacy

of facilities for education for business management. Men of the Carnegie type are deeply respected today for their achievements despite little other than self-developed educational reserves. However, men of that type fully recognized the need for greater educational opportunities and not only encouraged the expansion of educational facilities, but contributed materially to institutions organized to provide those opportunities.

The educational background of executives in business and industry today presents a different story. A roster of successful business executives reveals a high percentage of college graduates. Younger executives are almost universally college men. To compete successfully with others today, young men must take advantage of available agencies for educational development. However, one lesson that can be learned from executives past and present with respect to education indicates that such men have always interested themselves in fields of study which lie beyond the average college curriculum.

In the table representing the time spent by 350 company presidents in executive activities, it was shown that an average of approximately three-fourths of an hour a day is devoted to business reading. However, this is not the extent of the reading and study done by men in executive positions. A conversation with a dozen or so leading industrialists will reveal that they have a surprising knowledge of current events relating to political affairs and basic business conditions, and that they devote considerable time to reading which familiarizes them with historical, scientific, and literary information. Contrary to common belief, the successful executive today is a widely read, broadly educated, and well informed man. Management today is becoming a profession not only in the training required, but in the standards that are being developed to regulate and guide those in managerial positions.

Unlike his predecessor, the modern executive has been forced to recognize and deal with human factors. In a democracy every man, whether he works for a large company or a small company,

or for himself is, and probably always will be, an individualist. He wishes to be treated as a personality with separate and distinct identity. He prefers to be led rather than driven. In dealing with men, most top-ranking executives, their assistants, foremen, and supervisors have learned that they must discard arrogance, bigotry, and brutality in favor of fair-mindedness, tact, and self-control. In industry, domination through force is giving way to control through patient appeal to common human motives. This control is being exercised through the provision of incentives and rewards which will be accepted by the employee, rather than ironclad rates of pay, rules, and regulations which *must* be accepted. As a consequence the modern executive must possess a better understanding of and sympathy with his employees. To obtain maximum effort from employees today the executive must consider the men and women under his direction as human beings rather than as mere names and numbers on a pay roll. This newer relationship strengthens rather than weakens the executive's power.

The large corporation is placed at a disadvantage in maintaining adequate personal contacts with employees unless careful provision is made for the development of minor executives who can successfully deal with people. A suggestion as to the importance of close personal touch between executives and workers is revealed by a recent survey which shows that in thirty-five out of fifty-three different types of industries, smaller companies have a higher rate of production per employee than is found in larger organizations where executive contact is more remote. This factor has been offset in the past by distribution advantages and control of sources of materials enjoyed by larger companies; therefore, it has not always served as a check on the size of corporate organizations, but it has a tendency to do so. At least it does suggest the need for greater attention to the human element on the part of large corporations. The problem of executive functioning must not be confused with size of corporation, for the middle-sized manufacturing company was the most typical in 1941; before the

United States entered the war, 74% of workers in industry were employed in plants utilizing the service of less than one thousand workers.

The executive of today must gauge his actions to coincide with the modern point of view. That point of view has been well expressed by the leader in industrial relations whose experiences with James J. Hill were previously quoted.

These officials (hired managers of the past) were employees supervising other employees. They were supposed to be wholly subservient to the owner of their enterprise and their value was measured largely by high net profits and low costs. To a considerable extent this conception of a manager responsible wholly to the owner of a business survived even after the development of large corporations with many and scattered stockholders. Some managers even yet believe that their main, if not their only, duty is toward capital and their success can be measured by dividend rates alone.

Among more enlightened managers, however, there has emerged a new philosophy—that management is responsible not only to capital, but also to labor and to consumers; that its true function is to mediate and adjust the relationships between these three primary claimants to the product of industry, with the interest of the public always considered. According to this view, the management of a business enterprise has not been successful unless, in addition to fair dividends for stockholders, it has secured good wages and working conditions for labor and good products at reasonable prices for consumers.⁸

This statement by Mr. Hicks is especially pertinent because of his long experience in the field of public relations which, in addition to service that brought him into contact with the great railroad systems, included special work for the International Harvester Company, the Colorado Fuel and Iron Company, and Standard Oil. The viewpoint which he has expressed is reflected in a statement made recently before the National Association of Manufacturers' Institute on Employment Relations by Thomas Roy Jones, president of the American Type Founders, Inc.

Good personnel relations are merely a part of good corporate living.

The personnel program must have its conception and basis in heart

⁸ *Ibid.*, pp. 167-168.

and mind of the head of the company. Without these, although he may hire a flock of personnel relations men, the wisest program which they could devise would have only a chance. But even with the best possible intentions on the part of the boss, there is no chance for success unless he spreads it carefully through his supervisory organization.

Strong leadership in industry, with a clear understanding of its social and economic responsibilities, has the greatest opportunity for influence on the total society and economy of all of the factors. This is because of its size; its natural chances for integration; and because by its very nature, industry reaches into—and to a large degree co-ordinates—all of the other factors of our society and economy. Nor is this opportunity to be grasped through the emergence of a great leader who will direct all of industry as a whole. This leadership will only be realized when all business leaders, large or small, through a grand process of education, move toward a common goal. ⁴

TYPE OF ABILITY PREDOMINANT IN MODERN INDUSTRIAL ORGANIZATIONS

In a general way the typical industrial organization is a co-ordinated group of persons who procure materials, produce a marketable product, and then sell it. Management problems are present throughout the many aspects of these three stages of modern industrial enterprise. Executive ability is needed to solve not only the major management problem of co-ordinating the enterprise as a whole, but such ability must also be applied in the solution of special management problems which arise at various stages. Special abilities in addition to executive ability are frequently needed. Unique skills and technical knowledge are essential to the solution of production problems. The planning, construction, and maintenance of manufacturing plants places special emphasis on engineering and technical skills. The solution of marketing problems calls into play distinct sensitiveness to human qualities and the ability to mold opinion and influence behavior. The demand for constant improvement of products and sales competition necessitates a vast amount of research, cost analysis, production planning, personnel study, and clever market and sales analysis.

⁴ *Trained Men*. Volume 21, Number 5, 1941.

A wide variety of persons with special abilities is necessary to conduct activities required by modern production conditions in industry. The majority of these persons are not required to display special executive talent; they are valuable to their companies because they possess the specialized knowledge and skills necessary to discharge assigned tasks. However, there is need for executive talent to direct the activities of these specialists. Hence there are men in many organizations who are purchasing executives, production executives, research executives, sales executives, and personnel executives. Men sought to fill these positions are usually those who have general executive qualities in addition to capabilities in their fields of specialization.

The possession of abilities relating to the major functions of modern industrial organization does not, in itself, constitute executive ability. It does not, however, preclude the possession of executive talent. Many firms have found that the promotion of a star salesman to the position of sales manager was a mistake, yet in other instances an outstanding salesman has been eminently successful when placed in a position of executive responsibility. Some industrial organizations have selected prospective executives from among members of their engineering staff or have sought "green" engineering graduates and have put them through a routine of training and service leading to executive assignments. This practice has met with varying degrees of success—some of the men thus selected and trained have been successful, others have failed. Men who have been skilled craftsmen and even good foremen or supervisors have bungled when promoted to executive positions. Research men of renown have been equally famous for their lack of executive ability. Some of the world's greatest scholars have displayed a distinct lack of temperamental fitness in management work and have frequently been guilty of a surprising degree of executive stupidity.

It may be concluded that possession of sales talent does not preclude the possession of abilities which make for success in

executive work, nor does it guarantee such success. Brilliance as a scholar or research man, thorough knowledge of engineering principles and practices, distinction as a craftsman—none of these present a barrier to success as an executive; but specialized capacities in any of these directions does not guarantee that the man possessing them will make a good executive. Executive ability exists separate and apart from those qualities which may contribute to success in highly restricted, specialized industrial work.

FINANCIAL ACUMEN IS NOT EXECUTIVE ABILITY

Industrial organization and growth are dependent on financial management; financial acumen has always been necessary in corporate development. Some corporations have suffered from too little financial control, and many have suffered from too much. Astute financiers frequently carry business organizations through periods of severe economic disorder, while equally astute financiers sometimes dump corporations into the stormy seas of bankruptcy in order to net a profit for themselves and close associates from the salvaging process. Both instances demonstrate executive talent after a fashion, but one is socially constructive while the other is socially destructive. Executive ability directed along financial lines without social restraint has frequently undermined the belief of the general public in the virtues of private business enterprise.

Clever financial manipulation, such as is necessary in the formation of a giant corporation, may result in simplification of financial structure and bring both economies and profits, and benefits to the public in lower cost of product. In a generation past, financial manipulators set a mode which has since been imitated with varying degrees of success. Consolidation and interlocking have been supplemented in recent years by pyramiding to such an extent that control of business enterprise has frequently been too narrowly concentrated.

Financial genius alone does not constitute executive ability as we conceive it. Such genius may result in profit to a few or to

the many without the elements of executive ability, in the modern sense of social responsibility, entering into the situation. This is true because of the part played by the elements of chance, the power of concentrated wealth, legal technicalities, and uncontrolled economic factors which enter into all financial ventures. Executive ability in the truest sense is ability which can operate without the supporting force of concentrated financial power.

Various forces operate in the functioning of modern business enterprise. These forces require a certain amount of individual executive direction. Specialization of executive functions on procurement of materials, planning, production, finance, and distribution leads to executive conflicts. Those in charge of each of these functions frequently disregard the importance of the others; therefore, specialized executive control must have all-over direction. Furthermore, there must be close co-operation among executive specialists as well as directive co-ordination, otherwise each division will seek to promote its own ends at the expense of others. Procrastination and side stepping of responsibilities may also develop and political cliques emerge. Specialized executive responsibility must always be held secondary to general executive responsibility, but the persons who discharge general executive responsibilities must seek the advice of executive specialists.

EXECUTIVE ABILITY IS ALL-ROUND ABILITY

Standardization and specialization are catchwords in modern business organization. Great progress has been made through standardization and specialization, but standardization and specialization are tools of management and are not the essence of management. Likewise it is true that specialization is not the chief characteristic of executive ability.

Many investigators have attempted to isolate and measure executive ability. Various tests have been developed and applied with the hope that some single outstanding trait or capacity would be discovered which could be measured and used as an index of executive ability. Tests of intelligence, imagination, social

knowledge, judgment, attitudes and many others applied to executive groups have failed to bring to light any single trait or measurable capacity which, above all others, indicates executive ability. Unwarranted discouragement has been shown by some of the investigators who have sought the answer to this problem. They have been so deeply concerned with the hope that they might unearth a psychological divining-rod for executive capacity, that they have overlooked what appears to be the correct criterion of executive ability; namely, that executive ability is above-average ability in a large number of qualities which can be rated or measured, or, to state the conclusion in another way: executive ability is a complex of several abilities, all of which usually function above the level found in the average person.

Little would be gained by reviewing separately the findings of investigators who have studied the problem of executive ability. If all of their findings are considered together, the following conclusions seem to be justified:

1. Executive groups seldom fail to average as high in certain general ability tests as do selected groups of employees whose work is highly specialized.
2. Executive groups usually average above the pooled averages earned by several diverse groups of specialists on a wide variety of tests.
3. No single test has shown high selective power within a group of executives; that is, no test has been evolved which will select the poorest or the best executive among a group of executives. However, a battery of tests usually separates executives from others because of the generally good showing made on all of the tests.⁵

One of the authors (Mason), starting with the facts stated above, investigated the possibilities of differentiating persons of known sales, research, and executive ability. Tests covering the

⁵ See references to investigations made by Kemble, Scott, Yoakum, Kenagy, Bingham, Moore, Strong, Craig, Charters, and others cited in the bibliography in the appendix of this book.

mental functions measured by the following types of tests were investigated: (a) arithmetical reasoning; (b) generalized estimating; (c) symbolic relationships; and (d) word comparisons. The sales group did poorly in arithmetical reasoning and symbolic relationship tests, but showed better than average talent in estimating and word comparison tests. The technical group did unusually well in the symbolic relationship test, made an average showing on arithmetical reasoning and word comparison tests, and made a poor showing in estimating. The executive group earned average scores which were above the general average on all four tests; however, they did not make as satisfactory a showing on estimating as did the sales group, nor on symbolic relationships as did the technical group.⁶ Further experiments by the authors led them to develop a vocational aptitude examination containing sixteen tests and sub-tests which have been successfully used in differentiating administrative, accounting, sales, and technical aptitudes. These tests and their significance for executive selection are discussed in later chapters.

The results obtained from the use of these and other tests show clearly the difficulty of differentiating executive ability by means of tests; however, that such groups as those used in the investigation referred to differ is freely admitted by all persons who have contact with similar groups. In seeking a further objective indication of the nature of this difference, ratings of competent judges were secured on the executive, sales, and research groups covering thirty-three traits. For convenience and to insure greater objectivity, these traits were arranged on a rating form under the following general headings: (a) health and drive; (b) judgment of fact; (c) reaction in human qualities; and (d) leadership. The results of this investigation are enlightening and convincing. Salesmen were distinguished by high ratings on reaction to human qualities, whereas the technical group was distinguished

⁶ Mason, C. W. *The Possibilities of an Objective Executive Aptitude Test*. Thesis on file in the University of Buffalo library, 1930.

by high ratings on judgment of fact. The executive group exceeded both the sales and technical groups on all basic traits. Here, then, we apparently have the key to the puzzle of executive ability. *An executive is a well-rounded individual who does not deviate outstandingly from the average person of general intellectual superiority when measured by psychological tests; but who does deviate outstandingly by exceeding the averages shown by others on estimated qualities involving health, drive, judgment of fact, reaction to human qualities, and leadership.* These are the potentials of executive ability, but success as an executive requires the proper organization of abilities, knowledge, and personality traits. The true measure of executive aptitude is success on the job.

TEMPERAMENT QUALITIES ARE SIGNIFICANT IN EXECUTIVE ABILITY

The importance of temperament in executive success has been widely recognized. This is necessarily true because many of the problems with which the executive deals are those of human relationships. It is impossible to deal with human elements without involving the personal equation. Two investigators who have examined the problem of measurement of executive ability with care signify their belief in the importance of temperament qualities in the following manner:

There are dynamic factors in personality, not describable in intelligence terms, and not yet adequately measured by tests or any other device, which go far to determine success as an executive. We use such ill-defined terms as "initiative," "aggressiveness," "leadership," "courage," and the like to describe them. There are also important social factors—interests, "social intelligence," and the like—which are likely to affect success in this as in other occupations. Just what these "non-intellectual" determining factors are and how to detect and measure them is a task for the future.⁷

Since the above statement was written, sufficient study has been given to temperamental qualities of salesmen to make possible the conclusion that the successful salesman is more often

⁷ Kornhauser, A. W. and Kingsbury, F. A. *Psychological Tests in Business*. University of Chicago, 1924.

an extrovert, while the research man is usually an introvert. The executive is not likely to be distinctly either; he is more often a balanced personality. The salesman is highly sensitive to human qualities; the research or technical man ranks high on judgment of facts in comparison with his other qualities; the executive usually ranks high on both. We shall have occasion to discuss traits which are predominant in executive ability elsewhere in this book, but for the moment it may be said that executive temperament shows balance and all-around development.⁸

EXECUTIVE INCOME

No one knows exactly the amount paid yearly in the United States for executive services, but estimates can be made by using related statistics. Personal incomes fall roughly into three classes: (a) one-third of personal incomes are below \$1,100 yearly; (b) one-third lie between \$1,100 and \$2,200; (c) the top third exceeds \$2,200. Presumably executive earnings lie within the top-third class. This group which represents approximately sixteen million persons doubtless includes, among others, all persons whose duties involve executive responsibilities.

Inquiries addressed to several large corporations indicate that few persons entrusted with executive duties are paid less than \$2,500 yearly and, for the most part, executive responsibilities of persons paid less than \$3,000 yearly are a minor part of the duties involved in their jobs. The highest salary paid for executive duties is a matter of interest, but probably of little importance. It may be \$200,000 or even a million and may be paid for other reasons than executive services rendered, but, whatever the amount of income, there are comparatively few exceedingly large executive salaries. In fact, the number of executives who are paid

⁸ An interesting study with college students showed that success after graduation was more probable in the ratio of two to one if, while in college, the student rated high on intelligence tests, on scholastic standing, and had actively participated in student affairs, in contrast to the student who might claim distinction in only one of the three factors mentioned. Broad general ability, therefore, can be used along with other factors in predicting executive talent among college students. See Beatty, John D. and Cleeton, Glen U. "Predicting Achievement in College and After Graduation." *Personnel Journal*, Volume 6, Number 5, February, 1928.

salaries above \$25,000 cannot be very large, for the total number of persons, executives and others, receiving incomes in excess of that amount yearly is less than 100,000. From these scattered data it appears that a salary range of \$3,000 to \$25,000 yearly would include at least 80% of persons whose services are executive in nature.

It would not be possible to determine the average or median amount paid for executive ability even though the salaries of all persons doing executive work were known. This is true because the salary paid to any given individual usually includes payment for services other than those relating to executive functions. However, an examination of the methods used by one hundred representative firms for evaluating jobs for the purpose of salary standardization shows that all of these firms provide for larger salaries if the job involves executive functions. Like other specialized talents executive ability is rewarded by the social group.⁹

NEED FOR EXECUTIVE ABILITY

Roughly ten percent of employed persons in the United States, or approximately five million individuals, are engaged in work of an executive nature. In many ways this is the most important 10% of those employed, for upon their skill and ability as managers depends the effectiveness of the remaining 90%. No matter how skilled the workman, whether he be a research technician or mechanic in the shop, he cannot produce unless management provides the right kind of place to work, the right tools, proper instructions, and necessary materials. Nor will production be profitable unless a satisfactory market is found for his output. The mere expenditure of effort is no guarantee of productivity—it must be so directed as to meet the many requirements of our complex social and economic order. Those responsible for deciding what to make, how to make it, when, where, with what, and by

⁹ Readers interested in methods of payment for executive services may consult: Baker, John C. *Executive Salaries and Bonus Plans*. McGraw Hill, 1938. Washington, George T. *Corporate executives' Compensation*. Ronald Press, 1942.

whom—the executives—hold in their hands the economic welfare of the group. The more able the executive, the more productive the group and the greater the rewards to be shared.

The good executive recognizes and pays for skills and abilities, and those whose services he utilizes must be made to realize the contribution of the executive if he is to secure the greatest possible effort from those he employs. We need more executives who can “sell themselves” so that workers will more generally recognize the economic importance of the executive. There is still prevalent among certain members of the labor group the belief that the executive group is a parasite class. Nothing could be more false, and some of our most serious problems cannot be solved until this attitude is dispelled. Individual instances of executive inefficiency occur, of course, and such executives should be eliminated, as should those workers who appear on payrolls but produce less than might reasonably be expected. A clearer recognition by workers of the need for executives and the purpose they serve will make for better teamwork in business and industry.

Since the days of Adam Smith, economists have recognized the vital importance of the entrepreneur who brings together capital, labor, and materials, and who has within himself the ability to direct their use in a creative manner. The wants of mankind are supplied only by productive use of capital, labor, and materials. Efficiency of production depends in a very large measure on the executive skill and knowledge which is applied to the factors of production. Mismanagement results in social waste. Since the need for executive ability exists, its discovery and development are highly important, and a more general recognition of the importance of the question is a social problem of prime significance.

Executive Functions

BEING IN THE RIGHT PLACE, DOING THE RIGHT THING AT THE RIGHT time in proper sequence, employing appropriate processes and materials, and utilizing the services of capable people is the essence of executive functioning.¹ Clearly, then, executive functioning involves decision and action, direction and supervision, co-operation and co-ordination. But executive action does not occur separately and apart from the environment which acts upon, and, in turn, is acted upon by the executive. To understand executive action, we must, therefore, understand the general social setting in which it occurs. That setting may vary in certain respects—the area of functioning may be commercial, political, religious, or educational, and emphasis may vary accordingly, but it is always predominantly individual.

We are primarily interested in the functions of the executive in industrial and business enterprises, therefore, attention must be directed toward the American system of business enterprise. As that system has changed in the past, so have the functions of the executive changed. As it changes in the future, so must he change; but no system will ever exist which does not require his capacity for decision, action, direction, supervision, co-operation, and co-ordination.²

¹ A scholarly development of the theory of organization and the relation of the executive to "repeated mutual adjustment of persons to persons in co-operative effort" is presented by Chester I. Barnard, President of the New Jersey Bell Telephone Company, in *The Functions of the Executive*. Harvard University Press, 1940. See particularly pp. 127-138.

²The authors claim the distinction of having directed attention to the co-ordinative aspect of executive action and to have pointed out the significance of the social setting

THE MODERN INDUSTRIAL SETTING

A study of the economic history of the United States reveals fairly distinct epochs or periods. The first period to call for a multiplication of the factors of leadership and capacity for management was that beginning about 1840. Prior to that time the United States had been an agricultural nation. Two-thirds of our national income was derived from farming, transportation, and various kinds of personal service. The agricultural way of life accounted for $3\frac{1}{2}$ times as much of our national production income as was derived from manufacturing and four times the amount from trade.

The period from 1840 to 1900 was one of expansion. In 1840 the population of our nation was seventeen million persons residing, for the most part, in the area east of the Mississippi River; by 1900 it had reached seventy-six million. Growth in practically every direction accompanied the great increase in population: our railway system increased from 8,000 to 200,000 track miles; farms increased in number from 1,500,000 to 4,500,000, while the average number of acres per farm remained fairly constant; the area of the United States increased 40%; yearly production income advanced from around \$100 per person to \$210; per capita wealth increased from \$300 to \$1,200; and trade and manufacturing, which had accounted for but 19% of production income in 1840, was providing 39% in 1900.

Vast areas of economically virgin territory embracing immense, unmeasurable natural resources were brought under control during the period from 1840 to 1900. Executive success appears to have come to men who exercised imaginative foresight and who boldly assumed large risks in carrying forward plans

in executive functioning in the first edition of this book, published in 1934. The necessity for responsiveness to changing social attitudes toward business enterprise was also emphasized. That the talents essential to executive functioning are indispensable to social existence was likewise emphatically asserted. The authors wish now to be clearly understood in stating that efficiency of operation of any form of social organization rests with those permitted the privilege of exercising executive functions; the survival of any particular executive or group of executives may be influenced by either rational or irrational social forces, but executive functions are inherent in any continuous group action.

based on personal judgment. Farseeing men who possessed some of the traits of the prospector and speculator and who met obstacles with ruthless determination were the men who made history in this period.

The conquering of the western wilderness, accompanied by an influx of high-grade immigrants, set the stage for the period of mechanical development of American industry which followed. Efforts at reclamation and utilization of natural resources made mankind acutely conscious of the inadequacies of the human body and of animals as sources of power, and resulted in the development of power-driven machinery. These machines replaced the hand tools and crude hand-operated machines that were being used in the struggle to satisfy human needs through the exploitation of natural resources. Inventions by the score assumed prominence in the minds of men. These conceptions became realities and, together with belated introduction of European manufacturing methods, started a movement toward mechanization of production which had never before been paralleled in the history of the world. The outstanding executive of this era was the man who could commercialize the outcomes of inventive genius. Impressive as was the growth of economic processes during the early expansion period of our nation, that growth has been over-shadowed by economic and social developments since 1900. Population has increased to 130,000,000, per capita wealth has grown to \$3,000, and production per person has reached \$600. Because of the growth of industry and trade, agricultural production has assumed second place in importance statistically. However, agricultural production has increased in quantity to such an extent that we have, at times, been embarrassed by surpluses in farm production.

Eliminating industrial production for war purposes, stupendous growth in industrial activity is still shown; manufacturing other than war production accounted for 30% of our produced income in 1937. If to the income derived from manufactur-

ing we add that provided by trade, the combined figure becomes 45%. Measured by national income we are an industrial and commercial nation without equal. In 1937 the sources of production income, expressed in percentages, were as follows: manufacturing, 30%; trade, 15%; agriculture, 13%; service 13%; transportation and communication, 11%; mining, power, and construction about 3% each; and miscellaneous, 9%.

Comparative percentages show the relative importance of various sources of income, but they do not reveal the enormous increase in productivity that has occurred in the United States since 1900, nor can this be fully revealed by statistics on dollar value of various sources of income because of fluctuation in the purchasing power of the dollar. However, since we are chiefly interested in comparative growth, data presented in the following table will reveal the magnitude of our present economic structure in comparison with past periods.

TABLE 2
GROWTH OF POPULATION AND PRODUCTION
Income in the United States
(Millions of persons or dollars)

Year	Popula- tion (Approx.)	Agri- culture	Manu- facturing	Transporta- tion & Communication	Trade	Service	Total
1799	5	264	32	160	35	64	668
1819	10	294	64	176	55	132	855
1839	17	545	162	217	135	222	1,577
1859	31	1,264	495	694	494	572	4,098
1879	50	1,371	960	896	1,166	1,099	6,617
1899	76	2,933	2,714	1,528	2,578	1,745	13,836
1919	107	12,699	14,340	6,089	9,177	4,465	55,539
1937	129	6,757	16,629	5,934	8,414	7,130	54,959

(Adapted from National Industrial Conference Board *Studies in Enterprise and Social Progress*, 1939. pp. 28 and 95.)

During the period from 1900 to 1940, three outstanding factors commanded the attention of management, and the successful executive was one who recognized and dealt appropriately with these factors. They were: (a) development of corporate structures through legal and financial procedures, (b) technological im-

provement of production devices and methods, and (c) development of marketing techniques. Because of favorable legislation and comparative freedom from restraint of public opinion, a considerable degree of independence of action was possible. Today, however, the directives of public opinion and governmental regulation must receive executive consideration. These directives do not destroy executive functioning, they merely change points of reference. The executive of today cannot limit his responsiveness alone to stockholders and other suppliers of capital; he is the agent of his employees, his customers, and the public as reflected in general opinion and governmental control. Since the modern executive must be responsive to the whole social environment, it is imperative that he have a thorough understanding of it.

THE MODERN SOCIAL AND ECONOMIC SETTING

To attempt to present briefly the nature of the economic and social order in America under more settled conditions would require extreme courage; to attempt to do so under present conditions is doubtless foolhardy. However, the social setting of the executive is important; therefore, its description must be attempted. That the social setting will change is inevitable; the direction and the speed of the change and the merits of the outcome are difficult to anticipate. Yet the executive who survives must not only have a part in the emerging conditions, but must operate within the limits of those changed conditions.

The socio-economic life of industrial nations is dynamic. Attempts by men in executive positions to apply economic principles in an industrial society in terms of static organization are almost as amateurish as attempts to restrain economic forces by legislation. Concepts of economic organization must also make due allowance for the human factor. It is in the recognition of the inevitability of change in the play of economic forces on social life and in making proper allowance for the human factor that the executive makes his greatest contribution.

The dynamic aspect of economic organization and the interrelation of material and human elements has been succinctly described in a comprehensive report prepared by the National Industrial Conference Board from which we are privileged to quote.

Every factory, with all the machinery in it, is something other than a mass of bricks and metal. It really embodies an enormous assemblage of human qualities and capacities—the knowledge, curiosity, patience, ingenuity of scientists, engineers, architects who planned and constructed it and its contents; the ambition, thrift, adventurousness, cooperation, honesty of those who saved, lent and borrowed to pay the people who built it; the ideas of the people in the community where it operates as to how those who own or manage it should use it, as to the amount they should contribute to government, and as to the usefulness of the product it turns out. The factory, its machinery, and its products also embody the physical strength, intelligence, endurance, industry, integrity of all the people who constructed it and who work in it.

The same is true of mines, oil wells, railroads, stores and office buildings. Even the land on which food, cotton, wool and lumber are grown for use in living and in making a living is more than a quantity of the soil. Both the land and its products are in part the expression of the ideas, knowledge, experience and qualities of the people who acquired it, cleared it, and cultivated it.

So all parts of the process of making a living, and all the elements involved in it, are determined by the ideas, character, qualities, capacities and relationships of the people who take part in the process. It involves natural forces and materials with which humans have nothing to do, but the use of them in the process of making a living depends upon human qualities. All capital, wealth, production, and consumption are expressions of the ideas, knowledge, experience, strength, endurance, will, audacity, ambition, integrity, thrift, foresight, and other characteristics and capacities of people. What we call an economic system, which is merely the way in which a people make their living, is an arrangement of human qualities and relationships. The system actually consists of these qualities and relationships combined with certain physical forces and materials which nature provides. It is a living thing, an organism, not a machine, a mechanical arrangement, or a mathematical formula. There is no other way in which any econom-

ic system or any process by which a people make their living can be clearly understood, intelligently studied, and its problems effectively dealt with. . . .

Economics as a science or a branch of thought and knowledge is a part of the science of man, of the whole body of knowledge and thought about human nature and behavior. Since the ways of making a living are part of the process of living, economic facts, conditions, changes and problems cannot be studied or understood except as a part of our study of biology, physiology, and psychology of individuals and groups of people. The laws, principles, or regularities involved in the process of making a living are inseparably related to the laws, principles, or regularities of cause and effect which exist in the process of life of the individual and group as a whole. In this sense, economic laws and principles are natural laws. They cannot be said to be true or valid if they are inconsistent with the nature and characteristics of men and their life as a whole.

The statistics by which we measure the various economic activities of people tell us only a few things about the physical results of such activity, such as the quantities of things produced or consumed, the amount of money, materials or physical power used, etc. They do not measure or throw much light on the process of making a living itself. Since people are not merely physical machines, but living organisms, and the process of making a living is part of a process of life, we cannot fully understand their ways of making a living merely by measuring the quantities of physical things involved. We must know more about their ideas, constitution, qualities, capacities, and relationships as living human individuals before we can understand fully their economic behavior and problems. . . .

Enterprise may be broadly described as a way of collective life in which the arrangements and processes of making a living are based upon unconscious, voluntary co-operation of individuals in producing, exchanging, and consuming the greatest possible amount of the goods and services they want with the least aggregate loss or sacrifice to themselves, through their experimental, competitive efforts to utilize available natural resources and develop potential human capacities.³

³*Enterprise and Social Progress*. National Industrial Conference Board, 1939., pp. 10-13. Statistics quoted in this chapter were gleaned from the same source. The report contains a wealth of data on resources, population, wealth, income, living standards, prices, wages, profits, and American and foreign enterprise systems. It is recommended to students of executive problems as a reference volume which will provide factual answers to numerous questions of economic origin.

THE EXECUTIVE OF TODAY AND TOMORROW

No single individual or small group of individuals has shown the capacity to meet all the demands of economic problems growing out of our recent industrial development. Some have been in the focus of public attention more than others, and some have been given greater opportunities to serve society than, at any previous time, have been accorded any group of men. Whether those given such opportunities have discharged their responsibilities to a sufficient degree to merit the confidence shown is, at this moment, a matter of opinion, for time alone can bring objectivity of evaluation. However, it is safe to say that those suddenly thrust into positions of executive responsibility in government and business, and those who have attained such positions through longer periods of preparatory experience, have succeeded remarkably well in some respects and have failed miserably in others. This is true in any period of history for executive functioning is never wholly successful nor wholly unsuccessful; executive efficiency is a matter of degree.

Aside from those executives whose activities place them prominently before the public, millions of others have discharged their responsibilities from day to day in a highly commendable manner. Otherwise our whole system of enterprise would have collapsed. No one can deny that conditions of the past ten years have provided a challenge to executive ability—that challenge has been met, but obviously not as effectively as broader understanding of executive functions might have permitted. The war emergency called for the application of executive techniques on an ever-expanding scale. The challenge thus presented was met by organization of production to an extent almost beyond the limits of human comprehension through the utilization of men whose talents had hitherto been unrecognized. Post-war reorganization and social planning problems will present a need for executive ability of the highest order and greater in extent than was demanded either by the depression years or the war

period—that challenge must be met by the emergence of men of ability who can rise not only above the level of the executive misfit, but who can undo the havoc wrought by the political and industrial opportunists who are always ready to profit from unsettled social conditions growing out of world conflict.

Executive responsibilities and functions have broadened to such a degree that no single trait of personality or special intellectual talent will provide the key to executive success. Because of the complexity of modern industrial and commercial organization, and because of his close relation to human welfare, the executive of today and tomorrow must be a many-sided individual. Differences among industrial organizations likewise multiply the varieties of executive functions likely to be demanded. While it is improbable that any executive will ever be called upon to act along all of the diverse lines set up by extremely complicated business organizations, executive functions must be comprehended, appreciated, and co-ordinated through the thought and action of human agents. That which the executive cannot act upon directly himself, he must delegate, even though the function delegated is itself executive in a specialized sense.

SPHERES OF EXECUTIVE FUNCTIONING

As pointed out in the first chapter of this book, much of the work of an executive is done through conferences, hence a fair share of the working day is spent discussing specific problems with individuals or groups. Next in importance are supervisory problems involving the inspection of company operations. Assimilating information, making plans, and laying out future programs vary in degree of importance with the status of the executive, calling for considerable attention in some cases and requiring little attention in others. Some of an executive's time is given over to office details and other routine matters which may not have executive significance. In fact, it is usually true that only a part of the work of a person designated as an executive is executive in nature.

Executive techniques are applied to the social and economic factors involved in the industrial or commercial situation. An analysis of these factors as described above brings to light the following spheres of action:

1. Sources of supply of materials.
2. Technical processes involved in production.
3. Production procedures.
4. Marketing and distributing products.
5. Financial organization and management.
6. Risk bearing, responsibility, and liability.
7. Records, reports, accounts, and statistics.
8. Personnel organization and administration.
9. Social and legal institutions.

The executive must assume responsibilities, decide policies, delegate responsibilities and tasks, and supervise the actions of others in relation to all of the spheres indicated. The extent to which any of these becomes a major or a minor executive problem depends upon the degree of specialization of the position held by the individual.⁴

EXECUTIVE RELATIONS TO SOURCES OF SUPPLY

In the period of economic growth through expansion referred to earlier, raw materials were secured and utilized in a very wasteful manner. Industries were planned and managed without reference to ultimate needs for raw materials. Only immediate needs were given consideration because business managers either assumed that resources were inexhaustible or that entrepreneurship consisted of exploitation of sources of supply while they lasted. No plans were made for efficient utilization of raw materials over a long period of time; conservation of resources was given little thought. Plants were built near sources of raw material, and the executives of the period appear to have operated on the principle that plants could be moved to new points of supply when those at hand became exhausted.

⁴Cleaton, Glen U., and Mason, C. W. "An Analysis of Executive Functions." *System and Business Management*, Volume 63, No. 12, December, 1934.

Experience has shown that continuance in business necessitates planning to meet future needs for raw materials. The modern executive must know something about economic geography; he must know not only local resources but must be familiar with supplies available nationally and internationally. He must be able to secure and interpret information prepared by experts relating to domestic and foreign sources of the raw materials which he uses. In some industries he must keep in close contact with the development of sources of supply in foreign countries, and must guard against the disastrous effects which might grow out of curtailment of imports. At times he must aid in the reclamation and development work necessary in tapping resources at home and abroad. He must be able to plan in advance against exhaustion of sources of supply; to some extent he must also seek cheaper sources of supply to permit his company to compete against others more favorably located. Careful investigation of the possibilities of using substitute materials must be made, not only in the interest of their utilization by his company, but also to be prepared to compete against their use by others. Sources of raw materials were once considered problems for individual company solution. That day has passed for many industries. The development of new sources of raw material, sometimes at a great distance, is too great a task to be undertaken by any single business organization. It has frequently been found desirable for several companies who compete sharply in production and distribution to co-operate freely in the development of new sources of supply. Such co-operation should be encouraged as a national policy.

The social importance of maintaining adequate sources of supply for industrial production was brought sharply to the attention of the general public immediately after the United States became involved in war in December, 1941. We had been depending on imports to supply the greater part of our defense and civilian needs for rubber. When foreign supplies were suddenly

made unavailable, we began feverishly to prepare to produce synthetic substitutes only to discover that knowledge of methods of producing substitutes could not meet emergency needs because necessary plants and equipment were, for the most part, still in the planning and financing stage. This experience, which demonstrates the important fact that productive plants are a form of national resource, will become one of history's most famous examples of lack of executive vision and foresight. The vehement denials of responsibility for failure to prepare for such an emergency emanating from several industrial leaders and government officials, will also be long remembered as a classic example of "buck passing." Denial of responsibility, or seeking to place blame on someone else, indicates lack of executive ability, for the true executive not only assumes responsibility but meets situations created by erroneous judgment or failure to take responsibility with corrective action.

Knowing where to procure desired or needed materials and knowing the methods and cost of producing substitutes is technical knowledge, but it is not executive knowledge. The executive must know that materials are accessible and that adequate transportation facilities are available for the conveyance of materials to the point of use. He must know that plans are ready to be put into immediate operation in emergency. Furthermore, he must have foreseen the difficulties of placing such plans in operation and must be prepared to cope with such difficulties if and when they arise.

The curtailment of imports, sugar, tea, coffee, and tropical fruits, provided a lesson in the problems of organization of procurement on the home front in 1917 and in 1942. On the war production front in 1942 the problems of procurement relating to tin, manganese, chromite, bauxite, and antimony provided another lesson, but in the instance of these crucial materials reasonably satisfactory foresight appears to have been exercised. In contrast to the unhappy example of failure to provide properly for

emergency needs in the rubber industry, the steel industry offers an outstanding example of good management in the procurement and utilization of raw materials. The extent of intelligent planning by that industry is made clear when we realize that in the United States we have the capacity for producing quantities of steel equal to that produced by all of the other nations of the world combined.

War and other emergencies emphasize the interdependence of nations and industries in the economic scheme of things. These interdependencies are ever-present, but when they operate smoothly they are easily overlooked. Specialization of industries for production increases the importance of such relationships. Steel, petroleum, and rubber are the raw materials of giant specialized industries which in peacetime are closely linked through the automobile industry. Dislocations in any one of these industries creates disturbances in the others and such disturbances quickly spread to other related industries and are reflected in devious ways in seemingly remote economic activities. The executive must understand these relationships, for he cannot divorce himself from the economic setting in which he operates.

New relationships are constantly developing. Recently it has become apparent that plastic tubing can be produced which has distinct advantages when placed in competition with metal or rubber tubing. Aluminum can be displaced by magnesium, a metal lighter than aluminum, in the manufacture of airplanes and other products which require a light metal of considerable strength. Aluminum in turn may eventually compete with copper in the production of wire for transmission of electricity. Magnesium and aluminum are providing competition for open-hearth steel, and this in turn has caused steel manufacturers to turn to the production of electric-furnace, stainless, alloy steels.⁵

⁵Sources of raw materials in the United States are outlined in *The Structure of American Economy*, National Resources Committee, Washington, 1939. Publications of the Bureau of Foreign and Domestic Commerce and the Bureau of Mines contain information on imports showing the dependence of industries in the United States on the rest of the world. For popular discussions of two of our most vital industrial materials,

The appreciation and understanding of economic interrelationships is an executive function. This is somewhat equivalent to saying that the executive must be a student of economics, for the principles of economic philosophy deal with interdependence of economic factors. But the executive must go beyond the theoretical consideration of the inter-effect of economic forces. His must be an applied economics. Judgment must be exercised and decisions must be made, therefore exact measurement or close estimate of effects must be made. Imaginative foresight must be used in examining many "ifs" which may change any situation consisting of "things as they are." Whether arrived at by factual analysis, rough estimate, speculation, or through the use of presumptive hypotheses, conclusions must be reached, decisions made, and action initiated on the basis of the conclusions reached. This point applies not only to the question of raw materials, but to all spheres of executive functioning.⁶

EXECUTIVE RELATIONS TO TECHNICAL PROCESSES

Growth and expansion of industrial production has introduced many technical problems. In the early days of industrial growth, technical problems were frequently solved by the lowly method of trial and error. The solution of one technical problem usually develops awareness of many others, therefore it becomes unprofitable to continue the use of random experimenting as a method of solution. Fortunately this is no longer necessary, for the application of science to technical problems has yielded results which have made rule-of-thumb procedures obsolete. No industry of great proportions can successfully compete in the present economic period without the services of research workers

⁶There are numerous excellent textbooks on economic analysis. One such is Bowman, M. J. and Bach, G. L., *Economic Analysis and Public Policy*. Prentice-Hall, 1945. A study of that book in comparison with Rautenstrauch, Walter, *The Economics of Business Enterprise*, Wiley, 1938, will show clearly the distinction between applied economics as conceived by the professional economists and as actually applied by the production engineer.

see a pamphlet entitled *Economics of the Petroleum Industry*, Atlantic Refining Company, Philadelphia, 1941, and an article entitled "World Capacity for Steel Production," *Iron Age*, January 7, 1941.

and technicians. In turn, research and technical men cannot function successfully without the aid of the pure sciences. The executive, therefore, must have a general interest in science and technology.

The executive need not have expert knowledge of mathematics, chemistry, physics, and engineering fundamentals. But the executive cannot function properly in most instances unless he has a general understanding of the technical processes involved in the work of the organization with which he is associated. His decisions must be guided by intelligent judgment, and, since soundness of judgment is dependent on information, he must either secure the information needed for correct judgment himself or know the source to which he can turn for such information. General familiarity with technical problems is necessary for another reason; namely, that executive imagination must frequently be used to stimulate technical developments which are delegated to professional scientists and research workers.⁷

EXECUTIVE RELATIONS TO PRODUCTION PROCEDURES

In manufacturing industries, executive consideration of problems relating to materials and technical processes must be correlated with decisions involving other specialized aspects of production. Plant location, layout, equipment, product design, production planning, production control, application of power, maintenance, service, and transportation are general headings under which such problems fall. Problems of inventory, waste, salvage, tool design, safety, lubrication, spoilage, repairs, obsolescence, depreciation, replacement, interchangeability, scheduling, routing, dispatching, charting, inventory turn-over, analysis, estimating, budgeting, specification, instructions, standardization, simplification, tolerances, conveyance, testing, inspection, illumi-

⁷For a popular presentation of the application of science to industrial development, see the story of the Commercial Solvents Corporation as told by Kelly, Fred C. *One Thing Leads to Another*. Houghton-Mifflin, 1936. For examples of the types of problems with which technicians are concerned, see Eshbach, Ovid W. *Handbook of Engineering Fundamentals*. Wiley, 1936.

nation, heating, power transmission, power loads, air conditioning, incentives, and production standards are examples of specialized problems of production calling for solution. To the production technician these are engineering problems, whereas to the executive they must be considered in their economic aspects and in their all-over relationships to each other.⁸

Here as elsewhere executive supervision requires the making of decisions. These decisions are often made on the basis of technical reports. Wise decisions without comprehension of technical production problems and weighing of alternatives is impossible. Determination of crucial elements is an executive function, therefore, the executive must be able to weigh all implications presented by technical information. One writer commenting on the importance of technical information in executive decisions states the case as follows:

The conduct of a business enterprise requires a successive series of business decisions—decisions between possible alternatives with reference to the future. These decisions are of all degrees of importance, varying from trivial matters to matters of major policy. Some of them are made by intuitive judgments or “hunches” without any conscious attempt to express the alternatives to be compared in commensurable terms, or perhaps even to see clearly what the alternatives really are. Others, however, involve choice between definite alternatives which have been made commensurable by reducing them to terms of money and time. There is much evidence that many of these latter decisions, based on conscious economy studies, involving estimates of expected cost (and possibly of revenues) are incorrectly made because of the failure of the estimator to reason clearly about the differences between alternatives which involve common elements.⁹

⁸Technical discussions of these problems will be found in such books as: Eidman, Frank L. *Economic Control of Engineering and Manufacturing*. McGraw-Hill, 1931. Mitchell, William N. *Organization and Management of Production*. McGraw-Hill, 1939. Alford, L. P. *Principles of Industrial Management*. Ronald, 1940.

⁹Grant, Eugene L. *Principles of Engineering Economy*. Ronald, 1938. Page 15. This book also contains excellent illustrations of errors of reasoning in weighing alternatives. See pages 121 ff.

EXECUTIVE RELATIONS TO MARKETING

Buying and selling are the essence of business. No matter how well the task of production may be done, an industry cannot survive in the existing order of things except in terms of margin of profit between the cost of production and distribution and the income from sales. The general executive depends upon his purchasing agent in matters relating to buying; upon his sales manager in selling. Both of these officers discharge executive functions which are delegated to them. In a sense they are specialists, but each must understand the function of the other, and the general executive must judiciously co-ordinate the activities of both.

The general executive must understand market structure and problems of distribution. He must know how to use the middle-man, the market specialist, wholesaler, jobber, consignment agency, sales agency, advertising agency, and transportation agency to the advantage of his concern. He must also be keenly alert to changes in value and price—those which are current and those which appear as probabilities. He must encourage market research and be generally familiar with the multitudinous sources of market information. He must be able to interpret indexes of business conditions and be alert to possible indicators of purchasing power. Above all he must be familiar with the nature of the market for the products his company offers for sale and must encourage market specialists within his organization constantly to explore possibilities for new markets. He must know the portion of the market being exploited by competitors and must be ready to meet inroads made by new competitors and new products. Above all he must be able to co-ordinate the activities of sales and production divisions.

Executive decisions relating to marketing are numerous and extremely important in their relation to profit. For example, the question of quality versus price is a constant one. Product users will accept varying degrees of quality, but usually compare the product of one manufacturer with that of another. To compete

successfully under such conditions, quality must equal or exceed that of the competitor and price must be equal to or lower than that of the competitor. Since income is limited, sales diminish as price increases. Some buyers will pay for added quality, but the number grows smaller as the price is increased. Both price and quality must be adjusted to induce desired buyer acceptance, but sales of product usually cannot be pushed to a satisfactory level without the aid of advertising. The balancing of such factors as expenditures to get quality, holding price at a favorable level, and promotional expenditures is a problem for executive solution and decision.

Market investigation may reveal that a product is being produced to quality specifications greater than consumer use justifies. If production cost can be reduced by reducing quality, then it would be a wise decision to emphasize price in marketing. On the other hand, even though quality exceeds need in use, it may not be possible to make a commensurate reduction in cost of production by reducing quality. In that case executive judgment would dictate that sales emphasis should be placed on quality.

Sometimes it is necessary to determine the extent to which a given product will be manufactured in the company's own plant. There are numerous instances which indicate that a lower final cost can be attained by purchasing elsewhere some of the parts or elements which make up the final product. On the other hand, plant modification or extension might make it profitable for the company to produce rather than buy. The various factors involved in such an alternative must be weighed in arriving at a decision. The cost, original and subsequent, and the extent of the need for guarantee of product, user trial period, and free service are further illustrations of the many problems requiring executive decision in relation to marketing.¹⁰

¹⁰The following books contain valuable information on marketing problems:

Frederick, John H. *Industrial Marketing*. Prentice Hall, 1941.

American Marketing Society Committee. *Technique of Marketing Research*. McGraw-Hill, 1937.

EXECUTIVE RELATIONS TO FINANCE

Executive attitudes toward finance should be conservative rather than speculative. High returns quickly attained are sought by the speculator and represent payment for the risk or gamble taken, for such returns may be offset by losses in other ventures. A reasonable but steady return on investment is sought through executive direction in most business organizations. The exception to this general principle is found in instances where patent controls make possible profits higher than usual. High returns obtained through patent control are not returns for managerial ability but are the reward of monopoly and are made without reference to managerial efficiency.

The margin of profit obtainable varies with conditions peculiar to different industries as well as with general economic factors. In long-established and well-financed industries the profits should be high enough to provide for adequate depreciation reserves and to allow five to seven percent return on investments represented by shares of stock after payment of interest on bonded and current indebtedness and after providing for reasonable amortization of indebtedness. Some companies strive for high earnings in good years from which reserves against loss in poor years can be provided. The extent to which this should be permitted is a much debated question that has social as well as economic implications. Some companies seek high earnings in order to permit the use of reserves for expansion of production facilities. This is probably not justified socially because under such circumstances consumers are exploited and the original capital ventured is over-rewarded. It is socially more desirable for plant expansion to be made through use of new capital; however, venture capital cannot be attracted unless earnings are high and the prospect of continued earnings is good. It will be seen that many

Cowan, D. G. *Sales Analysis From the Management Standpoint*. University of Chicago Press, 1938.

Davenport, D. H., and Scott, F. V. *An Index to Business Indices*. Business Publishers, Inc., 1937.

Standards of Research, (applied to market studies) Meredith Publishing Company, 1929.

executive decisions involve ethical and social elements as well as purely business elements when questions of finance are involved.

Return on investment and profit on sales are frequently confused. If the net profit on sales is 5% and the amount of sales represents a capital turn-over once each year, then the net return on investment is 5%. However, with a net profit of 5%, the net return on investment would be 10% if sales represent capital turn-over every six months; or net return on investment under such circumstances would be 2½% if sales equal capital turn-over every two years. The relation between profit on sales and capital turn-over must be kept constantly in mind in executive determination of production and sales objectives.

Large volume of sales does not necessarily mean profit. Small volume of sales with a reasonable profit usually represents better management than large volume with smaller profit or with loss. It may be necessary, however, in some years to operate at a small margin of profit, at no profit, or at a loss in order to maintain market position. Ultimate choice of the course to be pursued is executive in nature. The relation of the company's position to markets, the relation of sales to capital turn-over, and the relation of sales volume to production costs must be taken into consideration before a decision can be arrived at. In general, overhead costs are better distributed on large volume, and lower prime costs (cost of direct labor and direct materials) may be attainable on large production volume. It may be possible, therefore, to provide a higher investment return for stockholders by securing greater velocity of capital turn-over and at the same time provide lower cost of product to consumers by spreading overhead costs and reducing prime costs through increase in volume. In handling financial problems the executive must, as in dealing with other problems, understand such interdependencies and weigh their relative significance.

Any business concern must do a certain amount of business to meet expenses of operation. If the amount of business fails to reach a point at which returns from sales equal expenses, then there is no profit—there is a loss. When amount of sales equals expenses, operations are said to have reached the break-even point. For reasons explained above, sales at the same price which exceed the volume necessary to reach the break-even point result in profits. These become increasingly greater each step beyond which the break-even point is exceeded. To take an arbitrary example: If the break-even point is 60% of operating capacity then profit may reach 6% at 70% capacity, may be 10% at 80% capacity, and may even reach 20% at 90% capacity. Important executive direction and decision are involved in the example cited. First of all it is not possible to have necessary information unless executive direction has made certain that a system of accounting and cost control which would provide it has been established. With information about past performance and market and production possibilities at hand, it would then be an executive function to set production and sales objectives with respect to production capacity and market absorption possibilities and to control or take into account the variance which might develop in either as shown by periodic reports. Other decisions may involve questions of price concessions which would be justified to attain a goal beyond that set, whether it might pay to sell at a loss in some markets to attain volume, and determination of steps necessary for elimination of certain types of expense items in case it becomes apparent that the sales objective will not be met. These are but a few of the decisions which must be made. Such decisions cannot be made and forgotten; they must be considered in the light of future possibilities and acted upon accordingly. Once decisions are made with respect to sales and production objectives they must be reviewed periodically and modified as necessity warrants.

Profit and loss problems are constantly present in business operations; therefore, the executive processes in relation to them

must be continuous. It has been pointed out elsewhere that application of financial genius, particularly for the purpose of manipulating the finances of corporations with a view to making promotional or speculative gains, is a specialized field in itself. At one time in the economic history of the United States such functions were associated with executive ability. Today, however, interest in high finance is likely to require attention that results in deterioration of executive judgment. Yet the executive must function in relation to the financial organization of society. The mechanisms of investment finance, as operated in providing capital, underwriting, share distribution, security markets, and their relation to business cycles, should be understood by the executive. The national system of credit, money and banking, and the elements of international exchange must also be understood, for their use is inescapable. The relation of the business executive to financial institutions is that of a user, not that of a financier. Executive functioning is necessary: in determining when and where to use each financial agency, in the allocation of responsibilities for financial management, choosing financial representatives, and in diagnosing weaknesses and failures in discharging responsibilities when they appear or seem imminent.

Executives often have capital invested in the corporations which they serve; in fact, among top-ranking executives such financial interest is the rule rather than the exception. This condition is a remnant of an earlier period of personal ownership and often is necessary to maintain control of the corporation in which the executive is interested. Theoretically such financial interest should provide an incentive to more efficient executive performance. Often it does, but it also may serve to cloak executive stupidity. The ideal situation is one in which the executive serves as an executive and the investor as an investor, even though they may be one and the same person.¹¹

¹¹For general discussions of financial organization the following books will be found helpful:

Field, Kenneth *Introduction to Investment Analysis*. Ronald Press, 1940.

EXECUTIVE RELATIONS TO RISK

Under the economic organization of society in the United States and other nations committed to the free enterprise system, the motive of business operation is profit. All corporate organization starts with the assumption that money and credit will be used to set up operating conditions which will result in added increments of money and credit. Usually the money and credit needed for starting a business enterprise is secured through issuance of stock, bonds, and notes. Land, buildings, and equipment are procured either by lease or purchase, and personnel is engaged with the understanding that services will be paid for as rendered. Goods or services produced are sold, and the difference between income and expense of operation, including depreciation, amortization, and taxes, is expected to be on the profit side. In their basic economic elements most business organizations are alike. They differ only in the product or service which they offer for sale and in the manner by which the product or service is made available to the purchaser. The objective of profit is the same, whether the business is a manufacturing concern, a wholesale or retail distributing agency, a farm, a mine, a building construction company, or a public utility.

It is not necessary for a business concern to make a profit to continue operation. Both evident and hidden losses may be absorbed for a time by withdrawals from surplus or through use of current assets to cover losses (cash, accounts receivable, inventory, raw materials, work in process, and finished goods). When current assets are applied against losses, working capital is reduced, which may in turn cause reduction in operating volume with further losses. If this process continues, then new funds

Bernstein, E. M. *Money and the Economic System*. University of North Carolina Press, 1935.

Moulton, H. G. *The Financial Organization of Society*. University of Chicago Press, 1930.

Angell, J. W. *Investment and Business Cycles*. McGraw-Hill, 1941.

Westerfield, R. B. *Money, Credit, and Banking*. Ronald Press, 1938.

For examples of financial problems involved in specific operation situations, see: Rautenstrauch, *op. cit.*; Grant, *op. cit.*; Eidmann, *op. cit.*

must be borrowed for use as working capital if operation is to continue. If profit does not then result, creditors may force liquidation of certain fixed assets (buildings, machinery, and land), may demand reorganization which causes holders of investment paper to accept a compromise which, of course, means a reduction in the equity represented by the original investment; or bankruptcy may be forced, which usually completely eliminates the original equity.

Since there is no guarantee that profit will accrue to capital ventured for business enterprise, risk of loss in equity is always involved. Profits are related to general business conditions, but they also vary with other factors, such as organizing capacity, capacity to manage, and ability to foresee sources of loss. It is evident, therefore, that a fair part of the risk to capital in any business enterprise rests squarely with the executive staff. Good management minimizes or reduces risks, and, while it is characteristic of the entrepreneur that he gambles with chance and change, the executive is expected to guard against their consequences.

As long as chance, change, and competition play a significant part in economic organization, the executive must think in terms of the risks involved and act accordingly. Methods of production change, sources of supply change, market factors change, values and price change. A series of erroneous estimates of these changes will most certainly wreck a business organization; a single grossly erroneous estimate may wreck an individual career. The executive must face such risks, must know how to plan against their consequences, and must know how to protect against loss in event of their occurrence. Hazards of chance and change can sometimes be foreseen and the probability of their occurrence predicted. Accounting and statistical techniques are sometimes useful in forecasting changes, and when forecasted, some disturbing occurrences can be prevented or policies and practices can be modified to compensate for their effect. Protection against chance

through various forms of insurance has also become available as risks have become more apparent. Use of insurance is not always justified, however, because business firms can often underwrite their own risks. Determining those risks which may be assumed and those which should be turned over to outside underwriters is an executive function.

A familiar example of protection against the element of risk is found in variations in rates of interest commanded by different types of credit loans. When business concerns with good credit are able to borrow at 6%, the federal government may be able to borrow at 2%; real-estate mortgages usually can be floated at 5% to 8%, whereas installment loans command 12% or more, and small individual loans may be available only at rates of 20% to 40%. We have previously indicated that a steadily earned profit return of 5% to 7% would be an index of successful operation; however, because of risks involved it may be necessary to budget operations with the expectation of a higher return. If conditions within a company necessitate borrowing at 6% to supply operating capital, then the anticipated return should be considerably more than 6%—in other words, it should be loaded for risk. If plant expansion is anticipated, or if the addition of new equipment or other changes are being considered, then the return on expenditures for those purposes should be weighed in terms of anticipated profits or savings. Because of the risk involved the anticipated profits or savings expected from expansion or change should be in excess of normal profit or interest. For example, if normal profit is 6%, expansion might not be justified unless estimates showed a possible profit of 10% on new volume. In making changes to effect savings, the change might not be justified unless it promised a reduction in operating cost of 15% to 20% in the activity affected. There is no rule which can be used to arrive at judgments in such matters—it is the task of the executive to consider all factors involved and then to weigh the element

of risk against possible returns in making a decision on the specific case at hand.

EXECUTIVE RELATIONS TO RECORDS, REPORTS, ACCOUNTS, AND STATISTICS

Records have become an important element in business operation. Increasing size and growing complexity of business institutions multiply the need for records and reports. This need has been made more acute by income tax, social security, workmen's compensation, and similar types of legislation. Research and industrial engineering methods have also contributed to the need. Because several persons originate forms and records, there is likely to be a great diversity; consequently one executive function may be that of encouraging standardization. Yet the origination of forms and records should not be discouraged by the executive, for he is the first to suffer from their lack if they are not developed. However, if their origination is not supervised, forms may be so constructed that unnecessary information is collected and valuable information is neglected. Executive functioning in respect to records and record forms, therefore, is one of supervision and suggestion which seeks to encourage standardization as far as is feasible, and which will provide for the collection of information on the basis of need or use and at the least possible expense.

Despite the many years that accounting systems have been used, many are inadequate and clumsy when viewed from the standpoint of executive utilization. They are likely to be influenced by tradition and by tax laws and regulations which require fictitious over-computation of profits. An executive cannot be an accounting expert and still discharge executive responsibilities, but he must insist upon having at his disposal accurate production and cost figures based on sound handling of depreciation and other non-recoverable items. The accounts needed should be available daily if he feels that he must keep current check on operations. Certainly these records should never be more than a week old. End-of-the-month records are past history; they are

inadequate since the executive must think in terms of "where we are going" as well as "where we have been."

The executive must know whether objectives are being met and must make adjustments if they are not being met.

A study of the economic cycles of business enterprise informs us that the successful operation of a business is largely determined by the intelligence with which the flow of values is regulated and controlled. The businessman should know how to adjust the operations of the business mechanism so that the most desirable economic consequences will probably follow from its operations. To do this intelligently he must have some records of the value changes which occur from time to time and use these records in the formulation of policies for the regulation and adjustment of the business processes.¹²

To this might be added the comment that since executive time is valuable the records which he demands from his accounting department should be condensed summaries.

In addition to routine records, executives examine many special reports, prepared by others, in arriving at decisions. They also frequently prepare special reports themselves in presenting information to others. It is important that such reports be concise, accurate, and well organized. Certain standards for report writing have been developed and should be applied. These standards relate primarily to: (a) statement of problem, (b) defining terms, (c) designating sources, (d) collecting information, (e) organizing and recording data, (f) analyzing and interpreting data, (g) presenting conclusions and recommendations, (h) preparing tables, diagrams, graphs, charts, and illustrations, and (i) preparing typed manuscript. Executive functioning does not always require elaborate reports. Frequently, a brief verbal or written statement will provide sufficient information. The telephone, personal consultation, group conferences, and inter-office correspondence are the media for securing needed information or answers to questions where a brief statement will serve the pur-

¹²Rautenstrauch, *ibid.*, page 28. This volume contains excellent examples of the application of accounting procedures to the solution of management problems. For a brief summarization of cost accounting as a tool of management, see Alford, L. P. *Principles of Industrial Management*. Ronald Press, 1940. Pages 354-407.

pose. However, economy of executive time and the importance of accuracy in executive decisions justify insistence on carefully prepared reports where circumstances indicate they are needed.¹⁸

Exactness of statement is prerequisite to the accurate solution of problems. The precise use of words, development of technical vocabulary, and the use of symbols aid in making exactness possible. The use of mathematics in science and engineering has not only made for exactness, but important technical developments in recent years would probably have been impossible without the aid of this tool. Many economic problems have a mathematical aspect; therefore, executive functioning requires the use of mathematics particularly as represented in statistical method. This has been clearly stated by one writer on mathematical analysis of economic problems as follows:

Mathematical methods of analysis have in recent years been introduced into the science of management. Some problems which were formerly entirely matters of judgment now yield to mathematical solution. Prediction may be made of the probable savings which will result from the installation of labor-saving equipment or from the selection of the most economical manufacturing lot size. Other problems of management which yield to mathematical solution are the problems of buying or generating power; of buying, building, or renting a factory building; of repairing or replacing an old production machine; and of determining the most economical number of machines for an operator to attend. Mathematical analysis is likewise applicable to problems of market study, merchandising, and distribution. It serves to discover waste in materials and motion, useless functions, obsolete and inefficient tools and methods, as well as other profit-reducing factors. The executive who does not employ this useful tool neglects to take advantage of a valuable aid to management.¹⁴

¹⁸Two excellent manuals on the preparation of reports are:

Agg, Thomas R., and Foster, Walter L. *The Preparation of Engineering Reports*. McGraw-Hill, 1935.

Amos Tuck School Committee on Research. *Manual on Research and Reports*. McGraw-Hill, 1937.

¹⁴Eidmann, *op. cit.*, page 8. For an elaborate treatment of the business aspect of statistics see Mills, Frederick C. *Statistical Methods*. Holt, 1942.

EXECUTIVE RELATIONS TO PERSONNEL

Executive functions have centered, at certain periods of industrial development, upon discovery and exploitation of natural resources, mechanization and production organization, financial organization, distribution and marketing of product, and personnel. In a general way the history of industry in the United States shows that interest has been intensified on these problems successively as industrial production has developed. In the early stages of industrial expansion the discovery and exploitation of natural resources was the matter of predominant concern. Recently, problems of personnel have held the center of the stage. We have, therefore, made little more than a beginning in the application of scientific techniques to utilization of human resources. The field of personnel management and human relations offers great promise as a means for further increasing efficiency in industry.

The distinctive relation of the executive to personnel is found in the exercise of authority. In business relations, authority is the right or responsibility of one person to direct the actions of another person, or persons, in the performance of assigned duties. The source of authority may be legal and may be reflected in power delegated within an organization. The fact that such authority exists is usually unquestioned. However, it is possible to exercise authority in ways which elicit willing co-operation or to exercise authority in a manner that arouses antagonism. In addition to the authority vested in an individual by law or rules of organization, special knowledge and skill also place an individual in a position of authority in personal relationships. Acceptance of such authority arises out of conscious or unconscious recognition of personal superiority inherent in an individual because of his special knowledge or skill. Other forms of authority are related to personal characteristics, such as qualities of leadership, sympathetic responsiveness to others, and general manner of conducting person-to-person contacts. The successful executive relies upon all

three sources of authority in dealing with personnel problems, but incurs less antagonism if the application of authority is persuasive rather than coercive.

To deal successfully with personnel problems the executive must understand human nature. Here, as elsewhere, the executive must be a constant student of psychology. He must understand and regulate his actions in the light both of individual and mass feelings, emotions, thought, and behavior. The modern executive cannot set himself apart from his social environment. In guiding the work of others, in the handling of problems of employment, promotion, discharge, discipline, training, safety, health, welfare, wages, collective bargaining, and the like, the executive must be constantly aware of the human elements involved. He must be keenly sensitive to legal restraints, habits of behavior, social attitudes, and social movements in making decisions and directing actions involving employees.¹⁵

The philosophy of industrial relations has undergone marked changes in recent years, and the attitude of the executive toward those under his supervision has been modified accordingly. The problem of morale has become increasingly important; therefore, it has been necessary to deal sincerely and sympathetically with human relations to prevent social revolution. The farsighted executive realizes that a highly motivated working force of wisely selected, well trained, and co-operative individuals will produce more efficiently and with less display of unrest than a working force that is under-paid and constantly harrassed by threats of discharge or other forms of punishment. Failure to use foresight and intelligence in dealing with the administrative aspects of personnel relations results not only in employee dissatisfaction, but creates unfavorable public opinion.

¹⁵Executives, prospective and actual, will find valuable information on management-worker relationships in the following books:

Roethlisberger, F. J., and Dickson, William J. *Management and the Worker*. Harvard University Press, 1941.

Heyel, Carl. *Human Relations Manual for Executives*. McGraw-Hill, 1939.

Moore, Herbert. *Psychology for Business and Industry*. McGraw-Hill, 1939.

Schell, E. H. *The Technique of Executive Control*. McGraw-Hill, 1934.

Development of legislation relating to labor relations shows that the executive must be responsive to public opinion as well as to the needs and desires of employees. Most labor legislation has resulted from agitation by labor groups and their representatives; however, they have had the support of public opinion. A brief resumé of the legal position of labor indicates that a different point of view must be used in considering personnel problems than is used in the handling of material, production, and financial problems. In 1895 the Supreme Court decided in the *Debs* case that courts were empowered to issue injunctions and punish their non-observance as contempt.¹⁸ This decision permitted management to continue to assume a coercive attitude. The injunction had frequently been used from 1870 to 1895 as a weapon against strikes, and the *Debs* decision encouraged their continuance. In the early 1900's labor leaders sought to prevent the use of injunctions and succeeded in securing the enactment of the Clayton Act in 1914. The Clayton Act reflected public opinion, which was opposed to the use of injunction, but the peculiar wording of the act permitted court decisions to prevent the legislation from serving the purpose intended; and, being unresponsive to or out of sympathy with public opinion, many shortsighted executives continued to apply to courts for injunctions to restrain employees. Between 1914 and 1932 the Supreme Court of the State of New York alone imposed 550 injunctions, an average of 33 per year. More effective legislation was sought. In response to public opinion and at the urging of President Herbert Hoover, the Anti-Injunction Act (popularly known as the Norris-LaGuardia Act) was passed in 1932, and became law when it was signed by President Hoover.

Having reached this point, labor organizations sought legislation to provide greater bargaining power for employees. The background for more far-reaching legislation was provided by the Railway Labor Act of 1926. That act, as amended in 1934,

¹⁸*In Re Debs*, 158 U.S. 564, 15 Sup. Ct. 900 (1895)

provided legislation which gave employees the unquestioned right to organize, join, or assist in organizing, a union on any interstate carrier. The National Labor Relations Act, passed in 1935, not only made interference of employers with union activities punishable, but made it the duty of employers to receive properly accredited employee representatives and to bargain with them. The Fair Labor Standards Act (federal wage-hour act), passed in 1938, regulating hours of work and stipulating minimum wages in industries engaged in interstate commerce, rounded out an extensive program of labor legislation by the national government, which has been supplemented by legislation in the separate states.¹⁷

Discharge of executive responsibilities requires an understanding of techniques of personnel practice. It is true that many personnel functions are delegated, but disinterested or incompetent handling of personnel procedures should not be tolerated. Unfortunately many employment managers have either been reluctant to accept new developments in personnel techniques, or have been so occupied with routine matters that they have failed to familiarize themselves with the newer procedures. That progressive executives recognize the importance of keeping abreast of developments in personnel procedures is reflected in the fact that management organizations, such as the American Management Association and the National Industrial Conference Board, have become leaders in the dissemination of knowledge on personnel administration. Because of the new approaches to personnel problems that are being developed in the present period, the executive should devote a considerable amount of his attention to this aspect of executive functioning.¹⁸

¹⁷Dickenson, Z. Clark. *Collective Wage Determination*. Ronald Press, 1941.

McNaughton, W. L. *The Development of Labor Relations Law*. American Council on Public Affairs, Washington, D. C., 1941.

¹⁸Late developments in personnel procedures are covered in such sources as:

Viteles, M. S. *Industrial Psychology*. Norton, 1932.

Yoder, Dale. *Personnel and Labor Relations*. Prentice-Hall, 1942.

Whitehead, T. N. *The Industrial Worker*. Harvard University Press, 1938.

So far, in discussing executive relations to personnel, the point of reference has been the business executive. Executive functioning in religious, political, and other social organizations requires even greater expertness in personnel relations. Within employee organizations, such as labor unions, need for executive talent is becoming apparent. Many labor leaders of the past have been successful primarily because of ability as promoters and agitators, and as such they have received the support of workers in the period during which labor has been striving for recognition. Now that suitable recognition of labor is embodied in national laws there has arisen a need for a broader type of executive leadership in labor organizations. Unless labor clearly recognizes this need, the gains of labor will be reduced by adverse public opinion. There is growing evidence of recognition of need for executive ability by officials of labor organizations.¹⁹

EXECUTIVE RELATIONS TO SOCIAL AND LEGAL INSTITUTIONS

As our social order becomes more complex the responsibilities of corporations and their representatives become more clearly defined both in public opinion and law. The executive must know the extent of liability of his company, of himself, and of other representatives of the company in a legal sense. Legal responsibilities definitely must be met in some manner; evasion of laws applying to corporations is no longer easy. While public opinion does not impose liabilities, the executive must be responsive to it. This has become especially true in recent years because failure to accept public opinion as a regulating force frequently brings

¹⁹Cooke, M. L., and Murray, Philip. *Organized Labor and Production*. Harper and Brothers, 1940.

Goeden, Clinton S. and Ruttenberg, Harold J. *The Dynamics of Industrial Democracy* Harper and Brothers, 1942.

Hard, William. "Needed Now: A Positive Labor Policy for Production. *Reader's Digest*, April, 1942.

Benge, E. J., S. B., and Hay, E. N. *Manual of Job Evaluation*. Harper, 1941.

National Industrial Conference Board. *Studies in Personnel Policy*. Particularly No. 38, "Employment Procedures and Personnel Records"; No. 37, "Selecting, Training, and Up-Grading Supervisors, Instructors, Production Workers"; No. 32, "Experience with Employment Tests"; No. 39, "Employee Rating."

Western Electric Company. *Job Instruction Manual*, 1940.

new, and sometimes highly restrictive, legislation. Intelligent public opinion cannot be ignored.

Numerous state and national laws, as well as municipal ordinances, direct, restrict, and regulate corporate action. Every sphere of executive functioning has its legal aspects; however, the executive need not be a specialist in legal matters. It is true that many graduates of law schools do become executives, but not to any greater extent than do engineering, liberal arts, and business administration graduates. The legal element in executive knowledge is but one small part of the total, and the same is true of other specialized fields of knowledge. Success as an executive requires knowledge and ability that transcend the limits of any college curriculum or specified field of study. General understanding of common law and equity, along with general knowledge of the principles of law relating to contracts, property, corporations, and trusts, is essential to executive functioning. Special legislation bearing on child labor, wages and hours, collective bargaining, arbitration, workmen's compensation, social security, interstate commerce, patents, imports, taxes, trade practices, product description, power rates, sanitation, and many other subjects must be taken into consideration in arriving at decisions and making plans. If we think of business executives having to concern themselves with legal matters ranging from national laws, such as the federal food and drug, communications, and tax laws, to municipal ordinances relating to building specifications, smoke abatement, or refuse disposal, a general picture of the scope of legal responsibilities will be evident. Legal factors are taken into account in a general way in formulating plans, and executive decisions often are not acted upon until finally approved by legal counsel.²⁰

The development of administrative law in the United States has provided many problems for the business executive. Administrative law vests certain powers in regulatory and licensing

²⁰Commons, John R. *Legal Foundations of Capitalism*. Macmillan, 1932.
Hohfield, W. S. *Fundamental Legal Conceptions*. Yale University, 1923.

bureaus, boards, and commissions, and in a general way sets up procedures which are extended and amplified by the administrative bodies themselves. Furthermore the decisions of administrative boards tend to become a part of the administrative law under which they operate. Many executives bitterly assail this tendency toward the development of bureaucracy with its maze of shapeless and disjointed legal technicalities. However, regardless of the executive's opinion of administrative boards, he must still be guided by administrative law as embodied in national bureaus, such as the Interstate Commerce Commission, Federal Trade Commission, and National Labor Relations Board; state bureaus, such as workmen's compensation boards and public utility commissions; and municipal bureaus, such as zoning boards and bureaus of tax adjustment.

Executives were given a brief opportunity to observe broad application of administrative law in the short period that N.R.A. (National Recovery Administration) codes were operative. Experience with more drastic regulation under administrative law has come about as a consequence of our participation in war. It is impossible to predict the extent to which business will be subjected to government regulation following the war—some persons claim to foresee another attempt to provide over-all regulation such as was tried under the N.R.A.; others pretend to believe that a return to *laissez-faire* is the only possible salvation for the free enterprise system. Neither of these extremes is desirable in the opinion of careful students of law and social problems.

Regulation of business, from a social point of view, is justified; but presumptive, arrogant, and irresponsible administration of regulatory legislation is indefensible. The faults which are likely to develop through unrestrained application of administrative law are carefully set forth by Arthur T. Vanderbilt, Professor of Law, New York University:

The chief objection to the most important administrative agencies exercising judicial functions is the combination of prosecutor and judge.

In actual practice, the administrative body may prescribe the regulations; employ inspectors to enforce them; file complaints against offenders in the language of an outraged plaintiff; ascend the bench, try the cases for violation of the regulations it has made, decide them on the basis of the testimony of inspectors it employs; and, where it files an opinion, sustain in the strictest judicial language the charges it has preferred in the language of an outraged plaintiff. Worse than that, the counsel to the administrative tribunal, who assisted in drafting the regulations and the complaint and in preparing the case for trial, will in most cases confer with the administrative officers trying the case, either openly or secretly, daily before the opening of court, during the noon recess, and after court, regarding the proof to be adduced at the hearing; he will participate in the deliberations of the tribunal leading up to a decision, if, indeed, the duty of decision is not in fact delegated to him, and he will write the decision of his tribunal. In short, counsel may in fact occupy every position in the controversy except that of defendant and witness and even then he will be close to the witness on the commission's pay roll.²¹

It is quite possible that the development of administrative law represents a social order in transition and as such should be a matter of distinct interest to the modern executive, for he must function within the limits of the general social setting. Critics of administrative law frequently comment as follows:

We remain unconvinced, then, of the necessity for specialist tribunals and a specialist administrative law. Unless we are prepared to admit that the whole constitutional centre of gravity has moved from the legislature to the executive; unless we are willing to be governed not by ourselves through our representatives but by officials who are responsible to no electorate: unless, in short, we are disposed to revise the whole theory and practice of the constitution which has so long been our boast: unless we are prepared to go thus far, then what is most urgently needed, and what is in no sense beyond practical possibility, is to make administrative power as responsible *de jure* as it is efficient *de facto*. And this we believe will be done only by means of a wholesome body of administrative law developed in harmony with the traditional principles of the general legal system.²²

²¹Law—*A Century of Progress, 1835-1935*. (Contributions in celebration of the one hundredth anniversary of the founding of the School of Law of New York University). (3 Vol.) New York University Press, 1937. Vol. I, p. 135.

²²Allen, C. K. *Bureaucracy Triumphant*. Oxford University Press, 1931. p. 105.

Vastly increased powers of the administrative branch have failed to provide any corresponding remedies for relief of wrongful governmental action. This evil cannot persist indefinitely; sooner or later we will reach the point where the state itself will be obliged to live up to the standards it imposes on its citizens. . . .

A movement which has had the power to twist and bend, if not to break, our strongest doctrines of constitutional law, of political theory, and of jurisprudence, grounded as they are in our national character with our traditional fear of tyranny and our love of individual liberty, presents problems that, manifestly, call for the highest type of statecraft on the bench, in the legislatures, at the bar, and in our universities. It is one of the hopeful signs of the times that these questions are being approached, in the main, with a forward look, with regard to facts as we find them, with freedom from partisanship, and with a due appreciation of their far-reaching importance²³

The modern executive must be alert to social responsibilities. "The public be damned" philosophy once attributed to representatives of "big business" can no longer be accepted by business executives, if, indeed, it ever was to any great extent. So cognizant of the importance of public opinion are business leaders that they have established publications and other public information services to provide background material for public opinion relating to business organizations.²⁴

Public opinion is not always an accurate guide by which the discharge of social responsibilities can be measured; in fact there probably are no true measures. But the executive who is sensitive to social responsibility will seek ways of evaluating the contributions of his company to the general welfare. A study of institutional advertising widely used by many firms will support this point.²⁵

²³Vanderbilt, Arthur T. "One Hundred Years of Administrative Law" in *Law—A Century of Progress*. pp. 140-141.

²⁴See especially "Bibliography of Economic and Social Study Material," National Association of Manufacturers, 1942.

²⁵An attempt to deal statistically with the problem of social contribution of business enterprise is reported in Monograph No. 7, *Measurement of Social Performance of Business*, published by the Temporary National Economic Committee of the 76th Congress, Washington, 1940.

Many community and business relationships of the executive lie beyond the realm of law and border upon or enter the field of ethics. The ethical relationships which concern the executive may fall within a limited sphere, as among business associates, or may be broader in nature and include the general public.²⁶ Formation of associations, such as chambers of commerce and trade associations, has been one method by which business leaders have sought for more common acceptance of principles of conduct of an ethical nature. Some phases of the work of such organizations as the Chamber of Commerce of the United States, the National Association of Manufacturers, and the Better Business Bureau have moved in this direction. Unfortunately, conflicts of business interest and public interest are seemingly inevitable; therefore, many business associations have not commanded the same high regard as is accorded some of the leading professional associations. Conflicts of interest cannot always be decided without the intervention of a third party. Arbitration is a useful executive tool for settling conflicts of claims which may have both legal and ethical aspects.²⁷

Because of his position the executive is often expected to be a leader in community and civic activities. He must interest himself in social institutions and community activities, such as schools, churches, recreation centers, boys' and girls' organizations, charities, and civic clubs. Failure of business executives to assume responsibilities as community leaders has often resulted in the development of industrial centers which leave much to be desired socially and physically. Community service clubs, such as the Rotary, Kiwanis, and Lions, emphasize the ethical responsibilities of business leaders and have made contributions which merit recognition. The membership in these three organizations is estimated to lie between 350,000 and 400,000, and includes many men in executive positions. Participation in some form of association activities, both nationally and locally, is rapidly becoming

²⁶Taeusch, Carl F. *Policy and Ethics in Business*. McGraw-Hill, 1931.

²⁷Kellor, Frances. *Arbitration in Action*. Harper, 1941.

an executive responsibility. Placing management on a professional level is an immediate task of the modern executive.

EXECUTIVE MINDS ARE BROAD-GAUGE MINDS

The review of the spheres of executive functioning which we have just completed reveals a need for breadth of knowledge, understanding, and appreciation. The higher the level in a business organization at which executive functions are exercised, the more clearly this need for breadth is shown. Experimental confirmation of this observation is available in the results of an unpublished study completed by the Bureau of Personnel Research at Carnegie Institute of Technology which revealed that executive groups displayed a broader range of information on a specially prepared test than did any of the other industrial groups tested. The executive cannot be a narrow specialist even though he may exercise his executive functions in connection with a specialized field in the business organization. Whether obtained in college, university, self-directed study, or through experience, the executive's education must include contact with physical sciences, technology, economics, psychology, sociology, history, political science, and law. He must be adept, to a certain degree, in the fields of English, mathematics, statistics, accounting, and office practice. Above all else he must be able to utilize the results of specialists in many fields of knowledge. The reader who wishes to extend his knowledge in order to attain greater executive efficiency will find helpful suggestions in the sources cited in the footnotes in this chapter.

EXECUTIVE PERSONALITIES ARE BROAD-GAUGE PERSONALITIES

No individual whose contacts are as broad as those of the modern executive can function properly without exhibiting a many-sided and more or less flexible personality. He must deal with people of varying temperaments and must possess the tact and insight necessary to secure the greatest possible contribution from each. He must establish a reputation for integrity and fairness among people with diverse motives. He must accomplish his ends by cultivation of loyalty and co-operation in persons looking

forward to highly selfish ends. He must be able to face unfair criticism as well as fair criticism and make the proper adjustments to both with courage and sincerity of purpose. He must see humor in situations involving trivialities which would otherwise become issues between himself and his employees and associates. He must be tolerant, sympathetic, and receptive in dealing with grievances and honest in judging their merits. He must possess and exercise these traits and yet give heed to constant pressure from stockholders and directors for the greatest possible showing of profit in the balance sheet.²⁸

ABSTRACT ANALYSIS OF EXECUTIVE FUNCTIONS

A study of executive problems presented in this chapter suggests the following analysis of executive functions:

(1) Determination of problems relating to raw materials, technical processes, production procedures, marketing, finance, risk, accounting, and personnel which require solution.

(2) Planning the solution of these problems with respect to the current economic setting with special consideration being given to legal and social responsibilities.

(3) Organization of personnel and setting up of physical equipment to carry plans into operation.

(4) Delegation of responsibilities for execution of plans.

(5) Supervision of human and physical agencies set in operation to carry out plans.

(6) Testing, checking, and modifying organization to compensate for inevitable changes and unforeseen consequences.

(7) Co-ordination of organization into a balanced unit.

(8) Maintaining control of organization at all times, since no scheme for organization is self-sustaining.

(9) Anticipating changes in organization and procedure and making plans to put changes into operation.

(10) Providing a means for growth and self-development.

²⁸*The Profession of Management*. National Association of Manufacturers, 1942.

CREATIVE SYNTHESIS

Unique among the executive functions is that of synthesis. The executive is the focal point in the organization of any business enterprise. The chief executive is the co-ordinating center for the rest of the organization. Below him, numerous division, departmental, and minor executives are co-ordinating centers for the specific phases of the organization. A functional chart of any industrial firm shows this fact graphically, but a true executive functions beyond the limits of an organization chart. He does something beside mechanical co-ordination; his concentrative functions are creative. Something that otherwise could not exist evolves through his efforts. His knowledge and dynamic personal force, his judgment and decision, his imagination and foresight, his sensitiveness to both material and human values stimulate and direct the flow of forces which would otherwise remain dormant or become obstructed. His ability to take unassociated forces with distinctly different characteristics and widely varying time cycles and synchronize them into balanced production units warrants recognition of this quality as a trait of creative genius.

Executive Qualities

A LARGE NUMBER OF OPINIONS AND SUBJECTIVE ESTIMATES OF EXECUTIVE characteristics have been offered by observers who have recognized the importance of executive ability in business and industry. Several investigations have been undertaken which have sought to determine objectively the primary factors in executive success. By checking the validity of subjective opinions, and through comparison with more objective measures and basic principles of psychology, it is possible to winnow out probable truth and obvious misconception. By co-ordinating isolated objective studies, it is possible to arrive at conclusions concerning executive ability that are not apparent in these studies taken singly. In this manner a fairly accurate list of executive qualities can be postulated. That such a list cannot be considered final is frankly admitted. However, material presented in this chapter provides a comprehensive basis for qualitative description of executive ability.

PHYSICAL CHARACTERISTICS OF EXECUTIVES

The most obvious differences in people are physical in nature. It is not surprising, therefore, that people have been classified on the basis of physical indices during all periods of man's existence. Height, weight, color, body proportion, individual markings, speed of movement, general health, and energy output are qualities which we observe directly or indirectly in the people with whom we are associated. Some of the oldest attempts to describe human nature refer to physical characteristics. Al-

though it is the opinion of the authors that little has been learned about the physical characteristics of executives as a group which can be used in the selection of men for executive positions, they believe that physical examination records should be carefully studied for clues to possible selection criteria. The scientific study of the executive problem presumes that all possible sources of distinction will be carefully analyzed.

HEIGHT AND WEIGHT

Many years ago an investigator collected data on height and weight of more than one thousand men in executive positions. He concluded from the data obtained that "Executives are taller and heavier than ordinary men."¹ The results of that study have been erroneously interpreted by others to mean that executive success is in some way corollary with, if not, indeed, directly dependent upon physical superiority to the average. An examination of the data collected in the investigation indicates that such a conclusion is both stupid and untrue. The fault lies in the method of analysis; the significant facts in any investigation of height and weight relate to the *range* rather than the *average*. That error of interpretation provides an interesting example of the necessity for exercising care in formulating judgments, which is precisely the sort of thing that an executive must guard against.

In the investigation referred to, 1,037 persons were measured for height. For selection purposes it is significant to know that these men, who were successful executives, ranged in height from 61 inches to 80 inches. In the same investigation it was found that 1,052 executives ranged in weight from 100 pounds to 280 pounds. That the executives examined averaged 71.4 inches in height and weighed, on the average, 181.1 pounds, does not provide us with an index by which we may gauge prospective executives, although it may be a testimonial to the robustness demanded by the arduous tasks in which the executive must engage. Pounds and inches cannot be used as measuring units of executive ability,

¹Gowin, E. B. *Selection and Training of the Business Executive*. Macmillan, 1918.

but they may be used in conjunction with other criteria which may be considered important by a health examiner in arriving at a decision on the physical stamina of a particular applicant.

Despite the conclusions just stated, it is quite likely that executives have been, and will continue to be selected, in many instances, because of physical build. Physique is tangible and impressive. Men of more than average height and weight have a psychological advantage in dealing with certain classes of subordinates. An executive is an embodiment of authority. Despite the fact that the modern executive tries to exercise authority in other ways, authority is still frequently associated with force in the minds of people generally. Large physique is a constant reminder of a probable advantage in case of physical encounter. In former times, management's threat of the use of force was an essential element. While this is more true of bygone days than it is of the present era, traces still remain. It is more necessary to make a display of force in dealing with people of low intelligence and primitive social experience than when dealing with persons of average or superior mentality who have been reared under the discipline of modern democratic society. Show of force is likewise more necessary as a technique of executive control among managers who possess limited knowledge of human motives than among managers who are well versed in the findings of modern psychology.

PHYSIOGNOMY

Observations which deal with differences in head structure, facial features, and body build merit only brief mention. Unfortunately there are still some persons in responsible positions in business and industry who believe that traits of character and intellect are correlated with physical characteristics. Pseudosciences, such as phrenology and physiognomy, if valid, would provide simple criteria for the selection of executives. Unfortunately no definitive relationships between physical and mental characteristics have been established which are trustworthy. It

is difficult to believe, therefore, that such physical characteristics have any direct relation to intellectual or emotional qualities of executives.²

Glandular action is believed to have a definite relation to personality. It may be assumed, therefore, that glandular functioning is related to executive capacity. It is known that such characteristics as masculinity and femininity are glandular correlates. External physical correlates of glandular structure have been identified to some extent, but not with sufficient exactness to warrant the use of external physical traits for diagnosis of glandular influences. Much promising material is available on glandular functioning, but little of the information is of such nature as to make it of value as an aid in identifying executive capacity. The general nature of available knowledge is illustrated by the following statement:

Glands arouse activity through chemical substances known as hormones, secreted by the gland and circulated by the blood. The thyroid gland, located in the neck, has, for example, a considerable effect on the general activity level of the individual through its control of the rate of chemical change in the body. If the secretion of the hormone of this gland, thyroxin, is deficient, the individual is sluggish and lacks alertness. An excess secretion is shown by excessive activity, irritability, and nervousness.³

HEALTH AND ENERGY

Good health is essential to proper discharge of duties in any position; it is especially important in persons who must meet the responsibilities of the executive. Great physical exertion, as such,

²Persons interested in disproof of relation between personality traits and such characteristics as facial contour, head structure, eye color, or hair color may refer to two carefully controlled investigations which show negative results. See Cleeton, Glen U. and Knight, F. B. "Validity of Character Judgments Based on External Criteria" *Journal of Applied Psychology*, v. 8, pp. 215-231, 1923. and

Patterson, D. G. and Ludgate, K. "B'onde and Brunette Traits." *Journal of Personnel Research*, v. 1, pp. 122-127, 1922.

³Shaffer, L. F. *The Psychology of Adjustment*. Houghton-Mifflin, 1936. p. 94. For further information on the relation of physiological factors and behavior see Cannon, W. B. *The Wisdom of the Body*. Norton, 1932.

A more romantic treatment of glandular influences may be found in Berman, Louis. *The Personal Equation*. Century, 1925.

is rarely demanded of the executive, but nervous energy is constantly being consumed. Variety and multiplicity of activities, making decisions, assumption of social responsibility, social stimulation, origination and administration of plans—all are functions making for nervous strain. Persons who are not in the best of health cannot bear up under such strain. The rare indisposition of persons who are found in executive positions as compared with the average individual is evidence of superior health, and is an indication of intelligent self-management. Exercise of initiative demands more than ordinary energy. The executive must be self-stimulating. The average human machine is responsive to outside stimulation, but persons in executive positions must initiate action whether stimulated from without or not. This calls for the expenditure of energy in kind and amount different from that necessary in routine action. In fact, routine work may sometimes be used by executives as a means of relaxing or “coasting” until the body has had an opportunity to rekindle the fires of energy. Conservation of energy is important to executives, therefore the ability to conserve, direct, and economically utilize one’s physical resources is an executive trait.

A man cannot work successfully and work hard unless he loves it and unless he keeps in sound physical condition. The man who simply sits continuously at his desk without taking exercise to keep him in trim will not do his best work. The best tonic and restorative for a tired man is to get next to Nature. Tramping and camping in the woods is the best thing I know for developing not only a man’s physique, but his mentality and soul.—*Cyrus H. McCormick*.

DRIVE

One of the most distinctive traits of the executive is referred to, for want of a better name, as drive. Energy is not limited to the physical. Executive functions call for moral and mental energy which are forms of psychic energy. Physical energy is necessary in expending psychic energy; continued expenditure of psychic energy requires more than usual physical reserves. The person who attempts to exercise executive functions without giving at-

tention to physical well-being is courting trouble. Many nervous breakdown cases may be traced to exhaustion of physical reserves resulting from expenditure of psychic energy necessary in solving mental and moral problems.

The extent to which energy is required in weighing issues, making decisions, assuming responsibility, and like activities is not generally appreciated. To some, the discharge of executive responsibilities may appear to be an easy task, but executive functioning is not as simple as it seems. To stand up under fire, or to guide sympathetically the work of others, frequently results in greater fatigue than would occur as a consequence of heavy physical labor. Energy output cannot be measured by the extent to which the individual perspires. Doubtless many executive failures occur because of failure, in the one extreme, to put forth the necessary energy for solution of problems, and, in the other extreme, by failure properly to conserve energy. If a definite amount of stone is to be moved by a laborer, efficient accomplishment of this end necessitates the application of a certain number of foot-pounds of energy and the use of tools in a certain manner. In a crudely analogous sense, the solution of executive problems in an efficient manner necessitates the application of a definite amount of mental concentration, or thought force, and the appropriate use of tools of knowledge, judgment, plans, statistical aids, tact, resourcefulness, and other executive tools.

Every individual is energized to a greater or less extent by the rudimentary forces of human appetite involved in hunger, sex, and self-protection. In addition to these, most persons respond to the force of desire for mastery or conquest. Specialized groups of individuals also vigorously pursue special lines of activity or passionately seek to accomplish desired ends set up in their imaginative thinking. The executive must go a step further. He will, as a natural consequence, move forward under the force of normal human appetites; he will pursue special interests and hobbies; but he must also in his efforts represent a goal or ideal

for the men under his direction. His pursuit of the ends which he visualizes and the plans for his company must be such that he energizes others with whom he is associated. He must be a constant source of social stimulation. The energy which he displays must be dynamically contagious.

PERSONALITY TRAITS OF EXECUTIVES

Personality traits are difficult to define, yet people quickly recognize the meaning of trait names, such as forcefulness, tact, and determination when they are used in ordinary conversation. To most of us these words mean characteristic ways of acting by which we differentiate the behavior of one person from another. They provide a convenient way of speaking which permits us to say, for example, that "a person is tactful," when what we actually mean is that the person shows more than the usual amount of tact when a continuous sample of his behavior is compared, by rough approximation, to the behavior of an average group of persons. We sense the degree of difference, but we do not try to measure the degree of difference; nor could we if we wished, for we haven't the means to do so.

For ordinary purposes the method of casual observation and rough approximation is sufficient in judging traits in others. But if such an estimate is made by one person, we may question the competency of the judge and the validity of the estimate. To compensate for such doubts we frequently try to get the opinions of several persons and to draw conclusions accordingly. In later chapters suggestions will be offered for arriving at more accurate estimates or measures of traits by means of rating scales. In this chapter reference to personality traits is made in the sense of everyday use. The traits discussed are those believed to have relation to executive ability. They have been selected from various sources and have been weighed against the analysis of executive functions presented in the previous chapter. Presentation of quotations from industrial and business leaders in connection with the discussion of these traits is not offered as proof of their signi-

ficance. Evidence of the importance of the traits in rating and measuring executive ability is presented later in this book. However, the quotations do show that business and industrial leaders are aware of some of the traits which have contributed to their success, and their testimony tends to confirm the analysis of executive traits which various investigators, using more objective methods, have reported.

AMBITION

Without ambition, other traits favoring the development of executive ability will not be utilized. The nature of ambition has seldom been carefully studied, yet everyone has experienced the desire to achieve in some degree. Ambition is more than desire or hope; it is more than day-dreaming; but desire, hope, and imaginary visioning are elements in this trait. In brief, ambition is the "will to be," or the "will to do." The person experiencing ambition previsions a goal and strives toward that goal. No one can doubt that men of great accomplishments have been driven forward by a consuming desire to achieve clearly conceived purposes.

Previsioning, striving, desire, hope, and purposefulness are internal elements in ambition. Certain external factors, such as opportunity, incentive, and social competition are requisite to the continued expression of ambition. In the absence of these factors ambition is blighted, save in the rare individual. Fortunately our present-day social organization provides for these external factors more adequately than any other previously known civilization. We are entering a period in which incentives other than purely economic ones are likely to be required to stimulate ambition. Something of the zeal of the expert craftsman and artist, which arises from self-expression through the medium of the talent possessed, is likely to be needed in the motivation of future executives more than has been true in the past. Professional attitudes rather than those related to avarice are necessary in dealing with present-day employees. Desires to dominate, to boss, to accumulate great wealth, cannot successfully support ambition to become an execu-

tive under probable future conditions. Desires to serve, direct, lead, and to have talents recognized by fellow workers are more likely to provide the kind of ambition necessary for realization of purpose looking toward executive functioning.

Ambition, when measured by zealous striving toward a wisely chosen goal, is a desirable trait. However, ambition may be a two-edged sword, since, unless it is carefully directed, it leads to lust for power, thereby ultimately defeating its own ends. Ambition may lead one into situations requiring greater capacity for thought and action than is possessed. It is likewise possible for ambition to feed upon success to such an extent as to destroy balance of judgment. The ambitious person who knows his own limitations is a valuable man, but the ambitious person whose ego is further inflated by each new achievement is a dangerous individual in any situation, whether it be social, industrial, or political. The points raised here are especially applicable to minor executives. Many minor executives have succeeded because they knew when they had arrived at their true goal; others have gone forward eventually because they had the patience to wait until they had developed their abilities to a degree to make possible the discharge of greater responsibilities.

The opportunities are as plentiful today as they ever were, if a man is willing to make the necessary sacrifices. No man, no matter what his vocation, can attain genuine success without making sacrifices. Nothing worthwhile can be got anywhere for nothing. Things we get for nothing we do not enjoy. The enjoyment comes from the hard work, the severe effort, and sacrifice entailed in getting the thing—and the greater the sacrifice the greater the pleasure. Work and labor and study and sacrifice are all necessary to winning the kind of success that brings satisfaction with it.—*Daniel Guggenheim*.

One reason, it has been observed, why many men fail is because they have no goal. They work hard, but aimlessly. In other words, they don't set up for themselves an objective and then bend all their efforts toward attaining it. The minute a man finds himself running around in a circle and not getting anywhere, he should set some definite point which he desires to reach and then make everything he does assist him

along to that end. When he has gained this point he should then set another one higher up, and so on until his ultimate goal is reached.—*Harvey S. Firestone.*

PERSEVERANCE

Perseverance involves persistence in the face of discouragement. Too frequently executive functioning provides no place for encouragement. The executive is the leader and the energizer. He must maintain a forward-looking attitude and sustain hope in the face of extreme odds. He cannot display defeat of spirit even though a project must occasionally be abandoned or retrenchment accepted. Regrets have no place in an executive personality, even though men in executive capacity frequently must learn through mistakes.

True perseverance does not mean persistence in a quixotic manner. The moth that flies repeatedly into the flame, though badly singed, is persistent, but not persevering. The general who sacrifices the lives of his men by repeating futile tactics of attack is stubborn, but not persevering. Blind plodding and unimaginative patience are no more perseverance than is long-suffering resignation. Perseverance presumes that there will be review and development of new approaches; it presumes that action will be based upon careful planning. Pursuit of ends in spite of discouraging results has been pointed to by many great executives as the "secret" of their personal success. Too often these men have failed to call attention to the fact that each defeat was followed by a new approach to the solution of their problem. To persevere is a mark of executive capacity when engaged in planfully.

I have succeeded in business, not because I had more natural ability than many people who haven't succeeded, but because I have applied myself harder and stuck to it longer. I know plenty of people who have failed to succeed in anything who have more brains than I have, but they lacked application and determination.—*James B. Duke.*

Above all, you must have tenacity. That is the greatest quality. Without it no man can possibly succeed. Whether in college, in a profession, or in business, unless a man is tenacious, unless he sticks to a thing

until he has mastered it, he has little chance of succeeding.—*Daniel Guggenheim*.

Nothing is impossible. We merely don't know yet how to do it. All that is necessary to overcome any obstacle is to find the right man.—*Thomas A. Edison*.

Too many men try to travel on a reputation. They stand upon their past achievements rather than daily pressing on toward further achievements. You cannot stake your future on the past, but on the present. A fellow must throw his whole energy into everything he undertakes and feel keenly that on this one thing, whatever it be he is doing, depends his whole future.—*Thomas E. Wilson*.

If a man has no native ability he is not worth much effort, and his native ability is worthless if he is not willing to apply himself conscientiously and with energy.—*Alvan Macauley*.

COURAGE

Since the executive must lead, order, direct, and assign responsibilities he must have courage. This means courage to take the initiative and confidence in judgment or courage of conviction. The executive must be willing to accept the consequences of his acts both so far as he is concerned individually, and for those under his direction. The importance of courage in executives is definitely associated with qualities of leadership. Evidence necessary for the substantiation of this point can be obtained from biographical studies of the great leaders of history. The leadership aspect of executive capacity has been analyzed by Dr. W. W. Charters. His study shows that volitional traits, such as ambition, perseverance, courage, industry, interest, forcefulness, and initiative are essential qualities in the leadership phase of executive talent.⁴

Real difficulties can be overcome; it is only the imaginary ones that are unconquerable.—*Theodore N. Vail*.

To win the battle of life a man needs, in addition to whatever ability he possesses, courage, tenacity, and deliberation. He must learn never to lose his head.—*Henry C. Frick*.

⁴Charters, W. W. *The Discovery of Executive Talent*. American Management Association, Annual Convention Series, No. 69, 1927.

Every critical situation a man is forced to meet during his business career should be regarded as a period of advancement. Every test is a chance to move ahead. The man who does not develop himself by meeting emergency conditions has a poor chance for future business success. It is no kindness to a young man to smooth things out for him. He must make his own tools and learn how to use them himself.—*Alvan Maculey.*

INDUSTRY

Being industrious means more than being busy; it means concentration of effort in a purposeful manner. Some executives reputed to be industrious accomplish little. They are either busy with petty things or, like a bee on a wax flower, are merely giving the appearance of being busy. The industrious individual tackles a job and finishes it while others are wishing it were done. Some persons lack the initial element of industry—the ability to attack a problem. Once they get started they finish a job in record time, but they postpone and delay the start on the slightest provocation.

Success that is worthwhile is, after all, very largely a matter of plain everyday morality combined with tremendous industry, and a deserved reputation for integrity and for fairness toward the other fellow.—*Alfred C. Bedford.*

If a task is to be done, do it, no matter how unimportant it may seem.—*James A. Farrell.*

INTEREST

Interest is not so much a trait or capacity as it is an attitude. Interest is expressed outwardly in sustained action and inwardly by focussing of attention. Interest is a corollary of self-expression. People differ both in the direction of interest and the intensity of interest. To fulfill the demands of executive duties an individual must be capable of intense and sustained interest; and, likewise, interest must run in the proper direction. No very good tests of intensity of interest have been devised, although it is easy to observe this factor in individual behavior. Extensity of interest has been measured in several ways, chiefly through studies of differences in the concentration of interest.

An element in interest that has recently come into evidence through objective measurement is the existence of interest patterns. Such patterns have been identified and isolated for specific occupations. They exist, doubtless, for races, social groups, age levels, etc., as well as for arbitrarily defined and broadly inclusive occupational groups. The possession of an "executive interest pattern" may be the determining factor in executive success regardless of the presence or absence of other executive qualities.⁵ The work of some investigators shows a marked overlapping of interests between executives and other vocations, hence additional research is needed before it will be possible to definitely differentiate executive interest patterns by tests. Some experimental work in this direction is reported elsewhere in this book.

The most important thing of all is to look upon your work as play and throw yourself into it with the same zest and relaxation and determination to excell as when you play baseball or checkers or football. By adopting this mental attitude toward your work you can accomplish more and find greater pleasure and satisfaction in the job of doing it. Any young man or older man—having this conception of his duties will not worry if obliged to stay after five o'clock. He will be eager to achieve the task in hand and will get genuine fun out of attaining his purpose.—*George W. Perkins.*

FORCEFULNESS

"Men of thought and men of action" is a very old classification, but is one which will apply to men who possess executive ability. An executive must be a man of thought and a man of action, and must often think and act in such a manner that he gives the impression of a well-directed and powerful force at work, but its presence must be recognized by the persons with whom the executive comes into contact. There must be in the personality make-up of an executive some aspects of intellectual brilliancy, physical superiority, impressiveness of mien or manner, and directness of action which command respect. Forceful-

⁵Strong, E. K. "Vocational Guidance of Executives," *Journal of Applied Psychology*, v. 11, pp. 331-347, 1927.

ness appears to be the term which best describes this constellation of traits.

There are more jobs for forceful men than there are forceful men to fill them.—*Charles M. Schwab.*

I had confidence in myself. I said to myself: "If John D. Rockefeller can do what he is doing in oil, why should I not do it in tobacco?" I resolved from the time I was a mere lad to do a big business. I loved business better than anything else. I worked from early morning to late at night—I was sorry to have to leave off at night and glad when morning came so that I could get at it again.—*James B. Duke.*

TECHNICAL KNOWLEDGE

The importance of technical knowledge is generally recognized. The range of technology involved in modern industry increases yearly. Twenty-five years ago it was possible for the owner-manager to be intimately acquainted with every detail of the operations occurring in his plant. Today the executive who would pretend such an extent of knowledge would be open to deserved suspicion; in fact, too much dependence on the technical knowledge of executives has resulted in enormous losses to some concerns. The executive must be familiar with the general technology involved in the operations under his jurisdiction and, in some instances, must be a specialist in some branches of technical knowledge. For the rest, for minutiae of technical knowledge, the modern executive depends on experts. Ability to draw upon, combine, and utilize technical information is a prime requisite of executives under present conditions. The range of over-all knowledge with which the executive must be familiar is covered in the second chapter of this book. Capacity to keep constantly alert to new ideas and information is an essential characteristic in executive functioning. The ability to become familiar with special bodies of information on short notice is extremely helpful in executive work—the executive is a perennial student and makes excursions into many fields of knowledge when the need arises. The one field in which the executive must be a specialist and a constant student is the broad field of human nature.

An executive's knowledge must be broad and general, and his habits of study must be developed with that fact in mind. The executive must avoid some of the faults which too often accompany intellectual specialization. Among the personality imbalances, fetishes, and complexes which specialization may produce and which should be avoided by the executive there may be listed the following: the materialistic complex of the economist; avarice, greed, and slickness of the promoter; the "hatchet-man" complex of the efficiency engineer; the social-betterment complex of the sociologist; the legalistic formalism and respect for ritual of the lawyer; the introverted devotion to search for truth of the research scientist; the meticulous attention to factual records of the accountant; the worship of mechanistic quantification of the statistician; the ordering of the world through individual adjustment of the psychologist; the soft pedagogy of the educator; the optimistic effusiveness of the salesman; the blatant cynicism of the journalist; the scholastic authoritarianism of the college professor; the ponderous pedantry of the philosopher; and the blind rationalism of the minister.⁶ But above all else he must guard against his own greatest shortcoming—the smug sense of proprietorship which often leads to a feeling that through superior ability and knowledge he is destined to become "the master of all that he surveys."

ABILITY TO MAKE DECISIONS

In the opinion of the authors the trait which distinguishes the executive more clearly than others is the ability to make decisions. It is conceivable that a man might succeed in an executive position by surrounding himself with men who could assume some of his functions, but it is difficult to imagine an executive who could long succeed without making decisions or who would require someone else to make decisions for him. Most human

⁶For the benefit of the well-adjusted persons in the various fields of professional specialization mentioned, it should be pointed out that the authors have in mind only those cases where the traits mentioned represent a fault in the sense that they are "good qualities gone to seed."

beings find it convenient to postpone judgment, to delay decision even to the point of procrastination. This occurs because of incomplete knowledge, fear of consequences, or general lack of self-confidence. The executive cannot afford the "on the fence" position. He must be able to give answers to questions on policy and procedure—else progress ceases. If he does not make necessary decisions, his subordinates either "run away with" the organization or become restive and worried.

Judgments must be reached and decisions announced on the basis of the best available information of the moment. Many of these judgments must be made on short notice. A competent executive anticipates contingencies and is prepared for many of them when they arise. While he seems to be making snap judgments, he is really announcing a judgment previously made. He looks ahead and anticipates problems which are likely to arise. If this were not true, so many decisions would be in error that confidence in the executive would be destroyed. Executive decisions must be distinctly better than guesses, otherwise the executive fails as a consequence of his own decisions. While an executive should never be unwilling to give due consideration to new evidence that relates to a decision that has already been made, many decisions, once made, should afterward be a closed book.

I have worked with a good many different men, filling a good many different kinds of jobs. Some of them have been with me from the beginning; some have lasted a few years and passed on to another job; some have not even lasted that long. Thinking back, it seems to me that those who got the best results were those who came to me, not for a decision, but with one. The man who comes to you with a decision may not always come with the right decision, but at least he has gone through the process of thinking his way through the problem. The very fact that he has done that thinking gives him confidence in his recommendations. He has made up his mind, and that is something. So many young executives in business seem unable to make up their minds on anything. They regard themselves merely as fact-depots and because they so regard themselves, they are so regarded by others. Business today is sorely in need of executives who can get results, and

one way to prove that you can get results is to begin on your present job by going to your chief with a decision for him to approve. Show him that you really have a "mind of your own." Don't require him to make decisions for you.—Quoted from an unidentified source in an editorial in *American Business*.

The trying of doubtful cases over and over again — unless new and essential data has been secured since the decision was originally made—condemns a man to a treadmill existence. This cannot be tolerated by the executive who aspires to bigger things, since the swinging of these bigger things requires that decisions be definitely made and business dispatched. It is these items dispatched—rather than numberless deals hanging fire—which cultivates the feeling of repose.—*E. B. Gowin*.

The majority of men pay too much attention to the way-stations and not enough to the terminals. When railroad engineers come to a mountain, they do not always go through it; sometimes it is best to go around it. Success comes through a judicious expenditure of energy. Sometimes it takes less to go around, and serves the same purpose. Men should look forward, and progress stops when they refuse to listen to other people's opinions, but they should make their own decisions.—*Walter P. Chrysler*.

ABILITY TO ASSUME AND DELEGATE RESPONSIBILITY

The person who dodges issues cannot be an executive. "Buck passing" is one of the most despised practices in business; most top-ranking executives will not trust responsibilities to men who are adept at playing "the old army game." Assuming responsibility means more than mere acceptance of it; it means that obligations will be met when due and that follow-up or supervision will not be required to secure action or decision. Debate or argument over the point at which a responsibility must be discharged does not bring accomplishment, and accomplishment is what business feeds on.

An objective point of view with respect to responsibilities is absolutely essential to executive success. Fussiness and braggadocio are characteristics displayed by men who are over-burdened with responsibility. Capable executives accept responsibility and remain unruffled in the face of consequences. The executive with

a sense of good organization plans for the discharge of responsibilities in setting up the system of operation and control of a business. He learns to organize, delegate, and supervise.

Ability to delegate responsibility is equally as important as ability to assume and carry it. Ability to delegate responsibility presumes that the executive can define the responsibility being delegated, can select the proper man to handle it, and can exercise confidence and patience in permitting the person selected to find the most satisfactory means of meeting the responsibility.

Most of us feel as if a sort of cloud weighed upon us, keeping us below our highest notch of clearness in discernment, clearness in reason, or firmness in deciding. Compared with what we ought to be, we are only half awake. Our fires are damped, our drafts are checked. We are making use of only a small part of our possible mental and physical resources.—*William James.*

Power is nothing but a responsibility to do the right thing. Since nothing is ever settled until it is settled right, no matter how unlimited power a man may have, unless he exercises it fairly and justly, his actions will return to plague him.—*Frank A. Vanderlip.*

I believe in throwing a load onto a man and giving him full responsibility of carrying it.—*Frederick J. Haynes.*

You must grant a large measure of responsibility to the man placed in an important position. Such a man has, of course, unusual ability, unusual brains. But it is often hard to bring home to such a man in such a position that he does not know it all, and that he could profit by counselling with others.—*Alfred P. Sloan, Jr.*

We give opportunity to others to do things; we place confidence in them, give them plenty of rope to work out their own ideas. Even if they do make mistakes occasionally, results are better than if we were to dominate them with one person's ideas all the time.—*Julius Rosenwald.*

Devote careful attention to training other men to shoulder and properly discharge responsibilities. When you get towards the top, or to the top, organize yourself out of a job. Encourage your best co-workers to reach out for greater responsibilities.

Don't look over others' shoulders every moment of the day to see what they are doing. Give them scope. Give them latitude. Encourage

them to think for themselves. Encourage them to develop initiative. Don't pounce on them when they make mistakes; sit down and reason things out with them.—*Charles S. Mott.*

OPEN-MINDEDNESS

Valid judgments cannot be based on prejudices. Facts and true values only are suitable premises for wise decisions. Prejudice is an emotional preconception which blinds the possessor to facts and values. In a world of changing conditions, constant revision of policies and practices is demanded. An individual who is emotionally blind to these changes, or who has a mental set which discourages their acceptance, is likely to fail as an executive.

Success as an executive requires sound, conscientious judgment. Decisions and actions should be based on conclusions. Holding opinions which color or influence the exercise of judgment undermines the validity of judgment. The right to personal opinions is an individual one which is protected by our democratic way of life. But the person in an executive position cannot have opinions as an executive; he may have opinions as an individual but acting as an executive he must base his judgment on conclusions arising from careful analysis, reflection, and selective thinking. Above all there must be an openness of mind, but that open-mindedness should mean willingness to consider evidence only in the light of its special merit.

There is a principle which is a bar against information, which is proof against all arguments, and which cannot fail to keep a man in everlasting ignorance; this principle is contempt prior to examination.—*Herbert Spencer.*

I have tried so many things I thought were true, and found I was mistaken, that I have quit being too sure about anything. All I can do is to try out what seems to be the right thing and be ready to give it up as soon as I am convinced that there is nothing to it.—*Thomas A. Edison.*

The human understanding, when any proposition has been once laid down (either from general admission and belief, or from the pleasure it affords), forces everything else to add fresh support and confirmation; and although most cogent and abundant instances may exist

to the contrary, yet it either does not observe, or despises them, or gets rid of and rejects them by some distinction, with violent and injurious prejudice, rather than sacrifice the authority of its first conclusions. It is the peculiar and perpetual error of the human understanding to be more moved and excited by affirmatives than negatives, whereas it ought duly and regularly to be impartial; nay, in establishing any true axiom the negative instance is the more powerful.

The human understanding resembles not a dry light, but admits a tincture of the will and passions, which generate their own system accordingly; for man always believes more readily that which he prefers. He, therefore, rejects difficulties for want of patience in investigation; sobriety, because it limits his hope; the depths of nature, from superstition; the light of experiment, from arrogance and pride, lest his mind should appear to be occupied with common and varying objects; paradoxes, from a fear of the opinion of the vulgar; in short, his feelings imbue and corrupt his understanding in innumerable and sometimes imperceptible ways.—*Sir Francis Bacon.*

INITIATIVE

Human beings are universally responsive to their environment. It is a biological law that they must be responsive to their environment if they are to survive. Mere survival and satisfaction of physiological appetites is typical of the great majority of human beings. Here and there among men an individual appears who undertakes to manage his environment. This assumption of a managerial role constitutes a primary form of initiative. From this simple type of initiative arises secondary forms which are displayed in research, exploration, invention, and speculative endeavors. Initiative of the simple or primary type is present in executive work. The very nature of executive endeavor demands initiative. The executive cannot be a follower; he must lead and direct.

The simple virtues of willingness, readiness, alertness, and courtesy will carry a boy farther than mere smartness.—*Henry P. Davidson.*

We take pleasure in the success of everybody in business, and even when instant duplication of our methods is attempted we hope that tomorrow we shall be as fresh as today, and shall be in the future, as

in the past, attempting to do what has hitherto been unattempted.—*John Wanamaker.*

ORGANIZING ABILITY

To foresee needs and to take the initiative in meeting these needs is, of course, only a phase of executive ability. Many persons who are able to lay plans and begin the solution of a problem lack the ability to see it through to completion. This lack is traceable, in part, to lack of persistence, loss of interest, and the pressure of other responsibilities; but it is also a consequence of the inability to organize and direct effort toward the solution of the problem. Organizing ability constitutes a very important part of the executive's talent. In the present highly competitive era, ability to organize men and machines for efficient production is the basis of profit. Efficiency in management, so characteristic of successful business enterprise, is the direct outgrowth of organizing ability. The modern executive must plan judiciously and thoroughly to place his product on the market in order to compete successfully in quality and price with the output of other producers.

The ability to organize implies the ability to see all the pertinent facts in relation to each other; in other words, seeing the problem as a whole. The specialists who contribute facts are likely to see only their side of the problem, and it is the responsibility of the executive to fit these facts into the complete picture, giving proper weight to each. The word "organize" means to bring into systematic relationship the parts of a whole. If the parts of a watch are properly organized it will keep time; if one part is left out it will not do so. In like manner a relatively unimportant detail considered separately may unbalance a business organization. Recognition of this fact and taking corrective action in accordance therewith is an executive characteristic.

If I had any system in my labor it was first to do my own work; second, to teach the fellow below me how to take my place; third, to learn how to fill the position ahead of me.—*Henry P. Davidson.*

I was never unwilling when young to do another man's work, and then when older, by never doing anything someone else could do

better for me. I was always fond enough of detail to master thoroughly what I had to do—and then hated detail enough not to bother with it when I got to the treatment of the general subject.—*Theodore N. Vail.*

He who hopes for success must organize, prepare, enlist method and science, if he would live upon the high plane which business has now reached.—*A. C. Bartlett.*

One should supervise details, but not let them absorb him.—*Frank W. Woolworth.*

Have a well considered system of doing things, definite and businesslike, not an imitation of something else, but one designed for your own use.—*John Calder.*

It is hard to get a man to let go of details, to grow up into control, to think for subordinates who do not think.—*Edward P. Butler.*

Our energies may be wasted and our facts misdirected unless we can guide them to definite ends; unless we can use our forces to get specific results.—*John V. Farwell.*

ABILITY TO ANALYZE AND EVALUATE

In a literal sense organizing ability means ability to evaluate, analyze, and marshal various factors in such a way as to produce the desired result. Obviously unless one is able to analyze a problem into its various elements it is not possible to arrange and control these elements except as a matter of luck or chance. A few persons exist who are able intuitively to do just the right thing without knowing how they do it, but such persons are rare. They, themselves, are the product of fortunate past experiences. Most persons cannot successfully solve a problem without first analyzing, evaluating, and ordering the elements involved. In most instances to attempt to do otherwise results either in ill-considered decisions or vacillation, blundering, costly experimentation, and consequent loss of reputation for exercising good judgment. Inability to analyze makes it impossible for an executive to know the elements involved in a problem calling for solution; inability to evaluate results in too much attention being given to inconsequential factors; inability to clarify and arrange the elements involved in a problem results in random efforts at solution.

The young man who applies himself seriously to thinking will by and by be amazed to find how much there is to think about. He should never be content simply to take things as they are; nor should he be satisfied with the accomplishing of one task, no matter how worthy or important.—*Otto H. Kahn.*

I want young men who think quickly and clearly, men who have had sound, even if insufficient, training, and who have good analytical powers.—*Harvey S. Finestone.*

You must not carry any useless mental baggage, you must concentrate on the things in which you are interested and expunge from your memory everything you are not interested in. There must not only be a spring cleaning but a daily cleaning of your memory, so to speak, in order to make room for fresh stores of helpful information . . . Cultivate a good memory and a potential imagination with ability to analyze conditions and evolve new plans and methods.—*James A. Farrell.*

Forty years ago I was impressed with the value of analysis in business, and that hour was the beginning of whatever success I have had.—*John H. Hanan.*

Quality of goods, confidence in your business and in yourself, ability and readiness to anticipate conditions and to adapt oneself to them—these are some of the essentials of business success.—*Edward C. Simmons.*

SOCIAL SENSITIVENESS

All persons are more or less influenced by others about them. Some unconsciously follow the lead of the individuals or groups with which they are associated; others strenuously resist social influence. The executive cannot afford to be whipped about by social forces emanating from individuals or groups, nor can he risk the possibility of arousing antagonism by bluffing, bullying, or boisterous argument. He must be keenly alert to human nature, and must be able to control social forces without arousing antagonism. He must be sympathetic and responsive, but he must keep a firm hand on his own impulses.

Studying the science of human nature has helped me greatly. If you know human nature you know how to handle human beings. . . .

EXECUTIVE ABILITY

You cannot undertake to develop certain qualities in others without unconsciously developing the same qualities in yourself.—*George M. Reynolds.*

Influence is the worst handicap any young man can have. It tends to make him feel he need not exert himself to his full capacity and has a bad effect on him.—*John D. Ryan.*

To accomplish successfully any task it is necessary, not only that you give it the best that is in you, but that you should obtain for it the best there is in those who are under your guidance. To do this you must have confidence in the undertaking and confidence in your ability to accomplish it in order to inspire the same feeling in them. You must have not only accurate knowledge of their capabilities, but a just appreciation and full recognition of their needs and rights as fellow men. In other words, be considerate, just, and fair with them in all dealings, treating them as fellow members of the great brotherhood of humanity.—*George W. Goethels.*

If I were to point to just one thing that gave me the greatest satisfaction in my whole life's work, I would say it has been securing the friendship and confidence of the large majority of our great family of employees. Yes, that has been most worthwhile achieving. That yields more real satisfaction than anything else in my life.—*Elbert H. Gary.*

If I had not been able to get along with people, I would not have been able to get on in the world.—*Lord Kitchner.*

ABILITY TO JUDGE PEOPLE

The executive must know his men. He must be able to assay the capacities of those who work for him, because in the assignment of tasks and responsibilities he must choose capable persons. He must be fully and concretely aware of the differences in human beings about which the psychologist knows in the abstract. Experience alone may produce this ability, but greater exactness may be attained and much time may be saved by the use of techniques which research in psychology have developed.

The most valuable ability of all is the ability to select men of ability.—*J. Ogden Armour.*

It is the duty of a manager to know his men—their strength and their weaknesses, and to use each man in that work for which nature and his training have best fitted him.—*Alvan Macauley.*

There is one principle which a man must follow if he wishes to succeed, and that is to understand human nature. I am convinced by my own experience, and by that of others, that if there is any secret of success it lies in the ability to get another person's point of view and see things from his angle as well as your own.—*Henry Ford*.

A man should be properly placed. The employer cannot afford to experiment with his organization, he must know.—*Henry S. Firestone*.

ABILITY TO CO-OPERATE

No individual can properly direct others unless he himself is able to follow directions. An executive directs the work of others, but he is also subject to direction. He must abide by decisions reached by those higher in rank than he. No one, in the true sense, is free from such direction. Modern corporate structure concentrates authority in boards and committees rather than single individuals. Formulation of plans and guiding principles under such conditions demand co-operative thought and action. Once plans and regulations are formulated, all concerned must work toward the common end dictated by those plans and purposes. Ability to adjust to group decisions and co-operate within such groups is an element of executive capacity.

You must learn to obey before you are fit to command.—*Arthur Heckscher*.

All of us have some weaknesses, but most human beings do not like to admit even to themselves that they have human weaknesses and limitations. Therefore, it is extremely difficult to get a man in the frame of mind where he will gladly seek to gather from other people in the organization what would offset, what would remedy, his own weaknesses. Yet this must be done in a large organization to bring about a maximum of efficiency and effectiveness. . . . I have seen men with fine minds who failed to make their plans effective because they lacked understanding of how to work with people. In our business I should say that this psychological ability and personality mean seventy-five percent of the necessary equipment. The ability to get people to work together is of the greatest importance. If people can get each other's point of view, disagreement as to policies and courses of action are usually slight.—*Alfred P. Sloan, Jr.*

LEADERSHIP

The importance of qualities of leadership in relation to executive functioning has already been emphasized. Many attempts have been made to analyze leadership into its component parts. The most satisfactory analysis provides a list of traits more or less commonly understood and recognized. Their definition in the abstract has been attempted many times. Satisfactory definitions for these traits are difficult to formulate for the reason that traits are difficult to identify apart from the specific situations in which they are displayed. Only by knowing how an individual has reacted in several situations are we able to judge the degree of strength of the trait in question.

Outstanding among traits of leadership are the abilities to command confidence, to inspire, to teach, and to bring out desired abilities in others. Important in the ability to build and maintain confidence in subordinates and to inspire them are personal appearance and manner. Here again it is difficult to describe minutely, although it is quite evident that physical build, emotional expression, and dress are significant factors. Manner of speech, characteristic gestures, posture, and gait are intimately and intricately a part of individual personality. An individual is not one of these elements taken separately—he is a composite of them all. From the co-ordinated display of these elements people recognize such traits as sincerity, loyalty, integrity, fairness, tact, self-control, and sense of humor—all of which are factors in leadership.

To lead, one must also serve.—*Anon.*

A great business is seldom ever built up except on lines of the strictest integrity. A reputation for "cuteness" and sharp dealing is fatal in great affairs. Not the letter of the law, but the spirit must be the rule.—*Andrew Carnegie.*

I would rather employ a person of no extraordinary ability but who had great tact, than one of conspicuous learning and intelligence without tact. Judgment, initiative, energy, all of these are most desirable and valuable assets, but above all comes tenacity and tact.—*Daniel Gugenheim.*

Looking back over my life I can now see clearly that there are two or three crucial points in it, and that in each instance the successful outcome was due to the practice of strict honesty, just doing the plain, simple, right thing and refusing to deviate under any circumstances from the ordinary path of fairness and integrity.—*William H. Nichols.*

A man must have personality—that is very important. He must have industry, application, and common sense—no man can do much if he is not endowed with a reasonable amount of brains. He must earn a reputation for unimpeachable integrity, he must tell the absolute truth, he must cultivate good fellowship, he must be a man other men will like and trust. Optimism, cheerfulness, readiness to encourage and inspire others, also help.—*Charles M. Schwab.*

The business leader of the future will sense the inner desires of subordinates, employees, and customers, and plan almost intuitively their gratification. He will know the public—the common people, the citizens of his country. Policies and methods of doing business he will shape with due consideration for the rights and sentiments of all those whom he sees fit to regard, broadly, as his co-workers. The leader in a free country necessarily must be an abler man than the autocrat who rules a race of slaves with an iron hand. The executive who dominates a factory, commercial house, or a financial institution in a society of intelligent and civilized people, jealous of their own rights, quick to note fraud, injustice, or oppression, must be a different type from the profiteers, the audacious business barons, the commercial free-booters, who upon occasion dominated in the past.—*E. B. Gowin.*

CONSENSUS OF OPINION ON EXECUTIVE TRAITS

The commentaries on the various traits discussed in this chapter are those of approximately fifty men who have earned outstanding reputations in various fields of endeavor. They are associated with education, science, engineering, politics, finance, and a wide range of business activities related to manufacturing, mining, public utility operation, wholesaling, department store operation, mail-order and chain-store merchandising, and real estate development. The manufacturing industries represented cover a wide range of products which include farm machinery, rubber, tobacco, electrical equipment, meat products, coke, oil, steel, automobiles, hardware, and chemicals. The comments

quoted have appeared in print in one form or another. In a more direct survey of executive opinion, comments were collected first-hand by E. B. Gowin. The statements obtained by Gowin were given in answer to the question: "Think of the three best men in your business—what qualities brought them promotion?" The answers, when summarized, provided a constellation of traits reasonably well represented by the following samples:

Desire for authority and responsibility, backed by sufficient will-power.

Resourcefulness in emergencies.

Pushed the work always, never let it push him. Was a live wire for others to look at.

A real diplomat liked by all the men. Enthusiastic—took personal interest in the business, and got the best out of everything.

Constructive initiative coupled with the application of good common sense added to whatever natural abilities a man may have, achieve success—and deserve it.

Kept studying our business, and training himself and every man under him all the time. We had to advance him or he'd have been stolen by some competitor. He is cheap at \$15,000 anyway.

Stick-to-itiveness, when the work piled high and the clock struck the hour. Didn't "go up in the air" at just criticism. Was amenable to suggestions and advice. Careful and accurate. Able to take the handling of some routine without being supervised every minute.

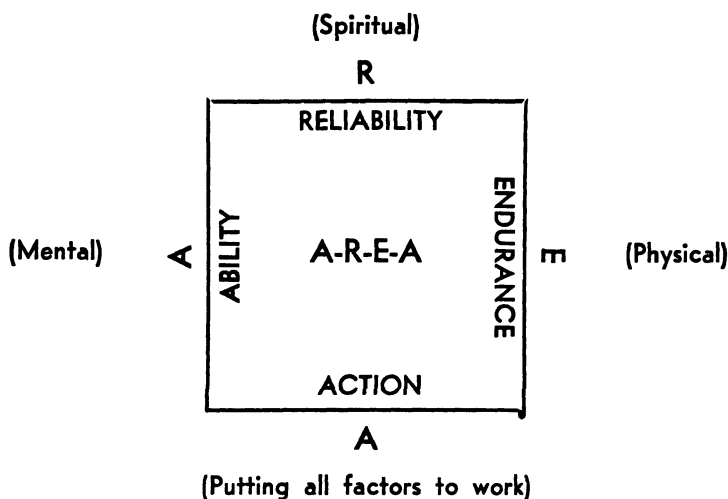
Ability to handle men. Initiative. Familiar with my system of records and my desires as regards correspondence. Congenial—and as much interested in the work as I; well-balanced disposition; being able to handle everything with a view to the best results regardless of personalities or obstructions.⁷

PERSONALITY INTEGRATION

The executive personality must be well-balanced, broad, and properly integrated. Integration is sometimes defined as: "A state of an individual in which his various habits, perceptions, motives, and emotions are fully co-ordinated, resulting in effective adjust-

⁷Gowin, E. B. *Developing Executive Ability*. The Ronald Press, 1919, page 11.

ment." The "four-square man" has often been used as a symbol for well-balanced, all-round ability, and for many years has been illustrated by the accompanying diagram.



It may be said that the AREA of a man's success is determined by the amount of each of the four factors. The area becomes larger or smaller depending upon the magnitude of any one of the four sides of the square; therefore, the area may be reduced through failure to develop any side of the square. A man might be mentally able, thoroughly reliable, and physically efficient, but still display limited action. In such an instance his success would be limited to the square made possible by this short side. The area would likewise be reduced if the man's mental or physical qualifications limited the size of the square, and, too, if he is not reliable, he will not be trusted to an extent which permits him to find opportunity to use his other qualities. *The area of any man's success is the square based on the shortest side; this applies particularly to the executive who, as we have seen, must be a well-balanced man who is above average in all important traits.*⁸

⁸Porter, Robert W. *Design for Industrial Co-ordination*. Harper, 1941, page 187.

Sutton, M. W. "Are You a Four-Square Man?" *American Magazine*, May, 1918, Volume 85, page 126-127.

Rating Executive Qualities

THE IDENTIFICATION OF EXECUTIVE TRAITS REPRESENTS A BROAD STEP in the direction of more reliable selection and training of prospective executives and provides a basis for evaluating present executives. However, attempts to utilize knowledge of the nature of executive traits are likely to be highly subjective unless resort is had to techniques of systematic rating and measurement. These techniques, originally developed by specialists in the field of applied psychology, are now widely used in business organizations. Their application has usually been limited to employees below the level of executives and supervisors. The paramount importance of members of the executive and supervisory staff justifies an extension of their application to such groups.

OBJECTIFYING JUDGMENT OF TRAITS

Where executive measurement is not possible, judgment and opinion must suffice; however, random or informal judgment is often of little practical value. Standardized judgments are needed. Rating scales of various types are widely used to provide standardized and comparable estimates on human traits.

The earliest forms of rating scales were little more than check lists of trait names. Raters were asked such questions as the following: "Is the candidate original?" "Is he dependable?" "Is he punctual?" Frequently a long list of trait names was presented, and the raters were asked to indicate whether the person being rated possessed these traits. This early "all-or-none" conception of

human characteristics has been discarded by scientific students of human nature. If a trait is displayed at all, it exists in some degree. The purpose of rating scales is to indicate the extent to which a trait or its antithesis exists in a given personality.

TYPES OF RATING DEVICES

As indicated above, rating scales used for the purpose of appraising ability, efficiency, or potentiality must provide for an expression of the degree to which a trait is presumed to exist. One way of expressing variation in the degree to which a trait is possessed is that of ranking. If ten men are being considered with respect to the possession of a certain trait, the simplest way to differentiate is to rank these ten men from high to low in order of merit. Such a procedure has distinct shortcomings for general personnel use. It is seldom that several people are considered at one time, and even when such ratings are possible, they are meaningless except in relation to the ranked group.

A considerable amount of experimenting has been carried on with a "man-standard" or "man-to-man" type of rating scale. By this method, men of known standing on a given trait are used as standards of comparison for rating others. The technique has been used satisfactorily in rating military personnel, but is too cumbersome for general industrial use.

In order to provide more flexible devices for estimating traits, various types of rating scales have been developed. These scales usually provide for graphic recording of judgments and are frequently identified by the key device used to guide the rater. Such terms as alphabetical scale, percentile scale, numerical scale, and descriptive scale are used to identify the key element. Sometimes a multiple-step method is used instead of the graphic method. All such scales are arranged in a manner that will permit the rater to indicate the extent to which he believes the trait is exhibited by the person being rated. Usually in such scales five to twenty traits or characteristics are designated, and these are divided into several steps or gradations, preferably not less than three nor more than

seven in number. The use of five steps or gradations is the most common practice. The following examples show one trait as it might be treated under the several different methods.

(Alphabetical Scale)

ABILITY TO MAKE DECISIONS

(Place a check mark on the scale to indicate the degree of the trait possessed, assuming that A represents the highest degree and E represents the lowest degree.)

.....

A B C D E

Sometimes explanations for the use of alphabetical or letter scales carry numerical suggestions, such as: The A group will include the top 7%; B, the next 24%; C, the middle 38%; D, the next-to-bottom 24%; and E, the lowest 7%. Such explanations are based on the assumption that traits are distributed in a normal population according to the frequencies of a normal distribution curve. The same purpose can be accomplished by converting the scale to a percentile scale.

(Percentile Scale)

ABILITY TO MAKE DECISIONS

(Place a check mark in the area representing the degree of ability possessed, assuming that percentile 94-100 includes the top 7% of the population in the normal distribution; percentile 70-93 includes the next 24%; etc.)

.....

Percentile Percentile Percentile Percentile Percentile

94 to 100 70 to 93 32 to 69 8 to 31 1 to 7

Many forms of numerical scales are used. Values are arbitrarily set. For example, 15, 12, 9, 6, and 3 may be assigned as values under the scale from highest to lowest. An interesting application of numerical rating is illustrated below.

(Numerical Scale)

ABILITY TO MAKE DECISIONS

(In one hundred opportunities to display ability to make decisions, how many times will the person being rated display that characteristic? If he has

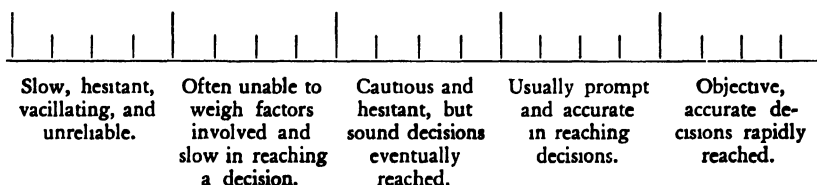
shown ability to make prompt decisions without delay and procrastination 90% of the time, check above the 90 point on the scale; if his batting average is about 50-50 on this trait, mark above the 50 point on the scale, etc.)

.....
 0 10 20 30 40 50 60 70 80 90 100

Descriptive scales may utilize single words, such as exceptional, superior, average, inferior, and deficient, or may be expanded by the use of phrases or sentences.

(Descriptive Scale)

ABILITY TO MAKE DECISIONS



The multiple-step scale differs from the descriptive scale mainly in form. Its chief advantage lies in the fact that persons doing the rating are less likely to fall into mechanical rating habits. Its disadvantage lies in the fact that it is usually more difficult to see the person's rating at a glance, therefore more difficult to interpret. The scale shown on page 108 is constructed so as to combine certain features of the multiple-step scale and the graphic scale.

AN EXPERIMENT IN RATING EXECUTIVE TALENT

In order to determine the extent to which executive ability might be identified by the rating method, one of the authors (Mason) conducted a series of experiments using college and industrial groups as subjects for rating. After a careful study of the traits usually associated with executive ability, a scale containing thirty-three traits was prepared. In this rating scale the traits were classified under four general headings as follows: Health and Drive, Judgment of Fact, Reaction to Human Qualities, and Leadership.

EXECUTIVE ABILITY

EXECUTIVE APTITUDE RATING SCALE

Name..... Group.....

Date..... Rated by.....

HEALTH AND DRIVE

Physical qualifications, ambition, energy, perseverance, courage, industry,

(1) (2) (3) (4) (5) (6)

interest, and forcefulness.

(7) (8)

Average Rating.....
Exceptional Superior Average Inferior Deficient

JUDGMENT OF FACT

Technical knowledge, ability to reach a decision, able to carry responsibility,

(9) (10) (11)

open-mindedness, initiative, organizing ability, power of analysis, and

(12) (13) (14) (15)

ability to determine the importance of various factors of a problem.

(16)

Average Rating.....
Exceptional Superior Average Inferior Deficient

REACTION TO HUMAN QUALITIES

Sensitive to human traits and reactions, able to judge human capacities so

(17) (18)

he can delegate work wisely, able to adjust himself to group decisions of his

(19)

equals in rank, and co-operate with his superiors.

(20)

Average Rating.....
Exceptional Superior Average Inferior Deficient

LEADERSHIP

Personality (appearance, manner), that builds and maintains confidence of
 (21) (22) (23)
 subordinates, sincerity, loyalty, integrity, fairness, tact, self-control, and
 (24) (25) (26) (27) (28) (29)
 sense of humor. Able to inspire, teach and develop men.
 (30) (31) (32) (33)

Average Rating

.....
 Exceptional Superior Average Inferior Deficient¹

The classification of sub-traits into four groups was found to have obvious disadvantages. Some persons were rated high in one of the sub-traits listed under the general heading and low in others. This was compensated for to some extent by suggesting that the rater designate above or below average standing on sub-traits by using plus or minus signs before trying to arrive at a general estimate. For example, in rating Health and Drive, the rater marked sub-traits one to eight inclusive which were estimated as above average with plus, and those estimated as being below average with minus. He was then able to formulate an opinion for making a general rating for the trait Health and Drive, which was finally recorded as exceptional, superior, average, inferior, or deficient. With the exception of the second general heading, Judgment of Fact, there seemed to be a marked correlation between the various items under each major heading. For some reason, not clearly determined, there appeared to be low correlation between ratings on technical knowledge and judgment of fact. It is quite possible that raters considered technical knowledge in a restricted sense as applying to subjects ordinarily taught in technical schools. Such was not the intent, but the fact that interpretation of terminology influences ratings is readily demonstrated by this experience.

¹Mason, C.W. *The Possibilities of an Objective Executive Aptitude Test*. Thesis on file in University of Buffalo Library, 1930.

In addition to industrial groups employed in sales, executive, and research activities, college students who had been previously classified for potential capacity into these three occupational groups were also rated on the executive aptitude rating scale in the experiment. The executive groups in industry and the potential executive groups in college obtained ratings consistently above average on the four general qualities included in the scale. The results, therefore, indicate that the four basic traits are executive in nature and that they are recognizable not only in persons discharging executive functions, but also in prospective executive material. The general high standing in rated qualities shown by the actual and potential executives agreed with performance on objective tests which were included in the experiment.

The sales groups were assigned high ratings, as a whole, on reaction to human qualities and average ratings in the composite on leadership. No individual in the sales group was rated below average on reaction to human qualities, yet there were many who fell below average on health and drive. Persistence and industry, particularly, tended to pull down the average ratings of the sales groups in the health and drive classification of traits. The sales groups were low, also, in judgment of fact, an experimental result which is especially significant since the students in the potential sales group had lower scholastic records than the potential executive and research groups.

The technical or research groups rated above average, on the whole, on judgment of fact, were deficient on reaction to human qualities and leadership, and were rated average on health and drive. Above average scholastic records were characteristic of the technical groups, an experimental finding which confirmed the relation between school marks and judgment of fact that was characteristic, in the reverse, of the sales groups.

This experiment demonstrated that a carefully planned application of rating scales can be of assistance in identifying men of varying potential abilities and can be especially useful in selecting

men whose capacities lie in the direction of executive functioning. By using objective tests, selective efficiency can be carried to a higher degree of refinement. At the present stage of development, both rating scales and tests are valuable tools which, when used with other available information, will aid materially in the solution of executive selection problems. Through experiment it may be expected that these devices can be improved and made more valuable as selection tools.

SUGGESTED SCALE FOR EXECUTIVE TRAITS

In view of practical difficulties encountered in the experimental use of a rating scale containing several items under one heading, a revised form was developed by the authors which included all of the qualities found applicable in the experimental rating form. The revised form was published in the first edition of this book as a graphic rating scale covering the following traits and abilities: (1) ability to make decisions, (2) ability to assume responsibility without undue strain, (3) sensitiveness to human traits and reactions, (4) personal habits, appearance, and manner that build and maintain confidence, (5) technical knowledge, experience, and training, (6) integrity, fairness, and sincerity, (7) forcefulness, energy, and perseverance, (8) ability to inspire, teach, and develop men, (9) power of analysis, discrimination of relative values, (10) open-mindedness, (11) tact and self-control, (12) health. Provisions were made in the scale for rating on the following degrees of each trait: exceptional, superior, average, inferior, deficient. Experience in the use of the revised scale has suggested further revision and the final form which has proved most useful is one which embodies some of the characteristics of a graphic scale and some of the elements of a graded multiple-step scale. The new form is shown on pages 108-112.

EXECUTIVE RATING SCALE

Instructions: Place a check mark in the square opposite the appropriate description. Include comments, both favorable and unfavorable, which may be helpful in further clarifying your rating.

Lines may be drawn connecting the check marks for the various traits in order to provide a graphic picture of trait relations.

ABILITY TO MAKE DECISIONS

Slow, hesitant, vacillating, and unreliable..... ☐

Often unable to weigh factors involved and
slow in reaching a decision..... ☐

Cautious and hesitant, but sound decisions
eventually reached..... ☐

Usually prompt and accurate in reaching decisions..... ☐

Objective, accurate decisions rapidly reached..... ☐

Comments:

.....

ABILITY TO ASSUME RESPONSIBILITY WITHOUT
UNDUE STRAIN

Nervous, fussy, and often appears
over-burdened ☐

Anticipates troubles and frequently worries over
possible consequences of acts or decisions..... ☐

Usually free from worry and meets problems as
they arise ☐

Knows what he is supposed to do and is rarely
concerned about consequences of acts or decisions..... ☐

Faces responsibilities calmly, faces facts squarely,
and accepts consequences of decisions..... ☐

Comments:

.....

SENSITIVENESS TO HUMAN TRAITS AND REACTIONS

- Inconsiderate and often arouses antagonism.....☐
- Indulges in bluffing, bullying, and boisterous argument☐
- Understands desires of others and is responsive to feelings of others.....☐
- Good judge of people, sympathetic, and encourages co-operation☐
- Keenly alert to human nature, persuasive, and self-controlled☐
- Comments:
-

PERSONAL HABITS, APPEARANCE, AND MANNER THAT BUILD AND MAINTAIN CONFIDENCE

- Slovenly, hesitant, evasive.....☐
- Accepted but not respected, often ill mannered.....☐
- Conventional in habits, attitudes, and manner.....☐
- Neat, straightforward, and confident.....☐
- Clean-cut, assured, and dynamic.....☐
- Comments:
-

TECHNICAL KNOWLEDGE, EXPERIENCE, AND TRAINING

- Lacking in all three or seriously weak in one....☐
- Marked weakness in one or two of these factors.....☐
- Any weaknesses in one fairly well compensated for by strength in other factors.....☐
- Adequate knowledge, experience, and training for the usual demands of the job.....☐
- Thorough training which has resulted in mastery of facts backed by experience☐
- Comments:
-

INTEGRITY, FAIRNESS, AND SINCERITY

Tricky and not to be trusted..... ☐

Frequently suspected of sharp dealing by others..... ☐

Honest according to his own judgment, tries to
be fair but is not always sincere..... ☐

Honest and sincere but not always able to convince
others of his fairness..... ☐

Makes everyone feel that he is honest, fair, and
sincere ☐

Comments:
.....

FORCEFULNESS, ENERGY, AND PERSEVERANCE

Indifferent, weak, and gives up easily..... ☐

Efficiency hampered by deficiency in one or more
of the three characteristics..... ☐

Consistent worker and carries task to completion,
but not forceful..... ☐

Energetic and persistent, usually forceful..... ☐

Positive, persistent, and vital to an exceptional degree..... ☐

Comments:
.....

ABILITY TO INSPIRE, TEACH, AND DEVELOP MEN

Unable to transmit knowledge or encourage
others in self-improvement..... ☐

Able to teach but uninspiring..... ☐

Successful in teaching and developing men placed
under his direction but does not inspire marked
effort in those being taught..... ☐

Presents material clearly, interestingly, and encourages
further study..... ☐

Gifted in the power to stimulate and direct the
development of others..... ☐

Comments:
.....

POWER OF ANALYSIS, DISCRIMINATION OF RELATIVE VALUES

- Hazy and confused in his thinking.....☐
- Slow and erratic in analyzing a situation.....☐
- Usually sees problem clearly, assigns correct values,
but over-deliberate in analyzing details.....☐
- Can break a problem down into details, pick out important
points, and arrive at correct conclusion.....☐
- Keenly analytic and capable of weighing accurately
all factors in the problem.....☐
- Comments:
-

OPEN-MINDEDNESS

- Prejudiced and opinionated, unwilling to change
mind in the face of new elements.....☐
- Frequently biased by former opinions.....☐
- Usually free from prejudice and willing to
revise opinions.....☐
- Receptive and never lets old judgment blind him
to new facts.....☐
- Alert in seeking new facts and constantly checking and
revising opinions when evidence warrants.....☐
- Comments:
-

TACT AND SELF-CONTROL

- Blunt in statement and frequently becomes angry
or excited.....☐
- Often irritates others by speech or manner.....☐
- Rarely loses control of temper and seeks to avoid
conflict.....☐
- Takes account of others' attitudes, exercises restraint,
and is diplomatic in trying to overcome differences.....☐
- Self-controlled, considerate, courteous, calm, and
extremely tactful.....☐

Comments:

.....

HEALTH

Ill health and nervous disposition often
interfere with work.....☐

Frequent periods of illness, lacks vigor and vitality....☐

Loses little time because of illness but uses more
energy than the job requires.....☐

Has reserve supply of energy to devote to special
problems beyond those required in the day's work.....☐

Display of health and vigor stimulating to others.....☐

Comments:

.....

The traits included in the Executive Rating Scale are general in nature; they cannot be otherwise if the scale is to have broad application in the selection of potential executive material. A more specific activity scale is often useful in rating an employee actually discharging executive responsibilities. Such scales can best be developed in relation to actual company conditions and should be prepared so that they are in agreement with job specifications which establish the major objectives of the particular job. They may include other activities as well as those of an executive nature. For example, supervisory executives may be rated on ability to meet production requirements with respect to quantity, quality, and time; cost control; making improvements in methods, products, processes, and facilities; and direction and supervision of personnel to secure enthusiastic discharge of duties and responsibilities. Some companies have found that a rating scale for executives in service may well include job activities as well as personal qualities such as we have included in the Executive Rating Scale. It may

be that some companies will find it desirable to use our proposed Executive Rating Scale along with another rating scale covering job activities. If the preparation of a supplementary rating scale is undertaken care should be exercised to insure that the scale is based on evidence of validity and reliability of supplementary items rather than personal opinion.²

RATING IN SERVICE

That the discovery of potential executive ability among college students and among employees in service and performance positions has value has been demonstrated. Rating of executives on the job is of equal or perhaps greater importance. This is borne out by a survey of top-management practices conducted by a research group at the Graduate School of Business of Stanford University. Their report, based on an analysis of practices in a group of thirty-one nationally known and well organized industrial companies, contains the following statements:

One of the most important and fundamental requirements in a sound and equitable program of personnel administration is the thorough periodic rating or appraisal of individual performance and capabilities on the job. Important as this is in the case of rank-and-file personnel, it becomes doubly significant in connection with staff, supervisory, and executive positions, where errors in selection and deficiency in performance are of maximum consequence. As applied to this group, comprehensive personnel ratings serve as an invaluable guide and basis for:

Early discovery and elimination of unsuitable men.

Recognition and correction of weaknesses through helpful discussion, special training, more suitable placement.

Discovery of talent, and with the most advantageous training, development, and placement thereof.

Bringing to attention the "forgotten man" who needs or deserves promotion, change of placement, or increase of pay.

Selection and appointment of best-qualified men to key positions.

²Valuable suggestions as to form, preparation, and use of rating scales are contained in *Employee Rating*, "Studies in Personnel Policy No. 39," National Industrial Conference Board, 1942.

Disposition of inadequately qualified men in key positions.

Equitable compensation of individuals within ranges appropriate to the job.

Stimulation of morale through assurance that recognition is based on merit only.

Stimulation of supervisor's interest in personnel administration.

Establishment of a permanent record of employees' qualifications, avoiding sole reliance upon personal knowledge of supervisors who may be shifted.

Generally assisting management in maintaining and improving the quality of personnel in all responsible positions.

Practically all of the co-operating companies make some attempt to size up their key personnel from time to time. Where this function is left to individual initiative, judgment, and method, however, results are likely to be inaccurate, inconsistent, and unreliable. Even with a systematic rating plan, overcomplexity, improperly qualified raters, and the tendency of preconceived judgments, prejudices, and partialities to influence appraisals may seriously impair its value unless special precautions are taken. A few of the companies have developed very effective rating plans, in some cases extending to top executives. Many of the other companies recognize the limitations of their present efforts in this field, and look with interest to learning of other more effective plans.³

PRECAUTIONS TO BE OBSERVED IN THE USE OF RATING SCALES

In addition to the precautions necessary in selecting or constructing suitable rating scales, still others should be observed in their use. These precautions may be summarized as follows:

1. Raters should guard against the concomitant factor which is known as the "halo effect." This terminology is used to describe the tendency of weak or strong traits to color the opinion of the rater on other traits. With some raters this tendency may go so far as to result in a general impression of the person being rated which may be reflected in the rating of each and every trait.

2. Raters should guard against "stereotypes." This is a tendency found in some persons which leads them to record all rat-

³Holden, Paul E. and research associates. *Top-Management Organization and Control*. Stanford University Press, 1941. pp 117-118.

ings either toward the upper or lower or center portion of the scale. With some persons this habit may be so firmly established as to disqualify them as raters; in others it may be mildly evident and require the adjustment of ratings to correct for rater bias.

3. Raters should be trained. Such training should include discussion and demonstrations of "halo" and "stereotypes." Other topics which should be covered in rater instructions include: (a) purpose of the particular rating plan, (b) range and scope of human abilities, including such conceptions as "normal distribution," (c) relation of the rating plan to other personnel practices—selection, training, promotion, wage standards, etc., (d) the mechanics of filling in forms, meaning of items, and standards implied, (e) use of results, (f) answers to problems or questions suggested by raters growing out of previous experience or trial ratings using the form under consideration. Conferences, group discussions, or individual coaching should supplement printed instructions.

4. Raters should be given an opportunity for supervised practice. No form should be introduced and used without first providing opportunity for raters to try out the form and discuss their results.

5. Each person under observation should be rated by at least three raters. Averages of ratings may be taken, but frequently agreement by two out of three raters on a trait for a particular person is a better guide than an average of the three ratings.

6. The rating plan should be "sold" to those on whom it is used as well as to those who do the rating. One way to "sell" those being rated, as well as to convince the raters of the importance of care in filling in the forms, is to let the ratees rate the raters.

7. Ratings should be made periodically, not sporadically; not oftener than every six months, but at least once a year.

8. Ratings should be reviewed either by a superior, by a personnel department representative, or by a reviewing committee.

However, once a rating is made, it should not be changed without the consent and concurrence of the person who did the rating.

9. Ratings should be discussed with the ratee, preferably by a third party. Often a personnel department representative is best qualified to undertake this important task. In such discussions the person who has been rated should be put at ease, and the interview should include commendations for favorable ratings and suggestions for improvement of qualities unfavorably rated.

10. Wherever possible ratings should be checked against other available objective evidence. This provides a means for determining the merit of ratings in general, provides a check against individual raters, and may suggest ways of improving the rating form.

11. Persons applying the results of ratings should clearly recognize that ratings are approximations, that they do not tell the whole story about the person rated, and that they are most useful when applied in connection with other information.

12. Raters should be reasonably well acquainted with the persons they are rating and the work which they do. However, too close a relationship between rater and ratee is sometimes a handicap.⁴

CONSTRUCTIVE USE OF RATINGS

Whether ratings are used to measure progress or to discover talent, they should be applied constructively. "Merit rating," a term which has come to be widely used in industry, carries various connotations, some of which are unfavorable. Because of the undiplomatic manner in which ratings have been used in some business organizations, many employees think that rating forms are devices applied to secure reports of their weaknesses. This is sometimes inevitably true, but the employee should not be encouraged to believe that such is the case. He should be shown that ratings can be used constructively, and even though the results of ratings may

⁴For further suggestions on the use of rating scales see Bingham, W. V., and Freyd, M. *Procedures in Employment Psychology*. Shaw, 1926. pp 135-140.

frequently eliminate a candidate from further consideration for executive service, he should be commended for his strong traits and encouraged to improve his weaker ones. Those traits which he has developed are useful in many jobs even though the work being done is not at the executive level. The danger of negative use of ratings has been well expressed by one personnel director in the following statements:

There is an amazingly prevalent conception in some companies that a rating plan is merely a new-fangled type of black list, something to be used for protective purposes when somebody wants to fire somebody else. Any company which operates a rating plan with this purpose in mind has a pitifully misguided idea of a rating plan's purpose, and a badly-warped conception of personnel work in general.

Throughout business I become increasingly appalled at the scarcity of kind words. All of us are quick as a cat to register a complaint about those who work for us and those with whom we work. It seldom occurs to us to go to the bother to see that a good word about someone else gets to the right place. In no feature of personnel work does this apply more than to merit rating systems. One man who had recently completed a study of ten thousand rating sheets told me that the ratio of good comments to bad was about 1 to 100. He said he knew positively that this wasn't attributable to the caliber of his company's personnel, but rather to the fact that supervisors simply don't think about sending in favorable comments. Getting the good reports is one of a rating plan's major functions and one which requires unceasing effort on the part of those who operate it.⁵

RATING BY THE CONFERENCE METHOD

Because of the important place in business organizations held by persons in executive positions, periodic review of the effectiveness of performance of such men is often necessary to prevent disastrous developments. The problem is of such significance as to warrant the most careful consideration. Use of the conference method of rating guarantees a thoughtful, analytic approach.

Many rating plans fall far short of meeting expectations because reliance is placed upon the judgment of one man, normally the immediate superior, in making appraisals. Under this plan, each supervisor or

⁵Quoted in *Employee Rating*, *op cit.*, page 18.

executive is handed a bunch of rating forms and asked to rate his subordinates. As might be expected, results are apt to be colored by the many differences in viewpoint, inadequate knowledge of rating principles, preconceived judgments, and personal likes or dislikes. To get around this, several companies secure independent appraisals from the several supervisors and executives most familiar with each man's work. These opinions are then reconciled and co-ordinated, usually by the personnel department, consulting as necessary with the individual raters, and resolved into a final rating.

One company has made very effective use of the conference method of rating to assure the uniformity and reliability of appraisals. Under this plan, carefully selected and thoroughly trained conference leaders or chairmen, usually from the personnel organization to assure impartiality and proper viewpoint, meet with the several supervisors and executives having closest familiarity with the performance of the individuals to be rated. The chairman's function is to educate the raters as to rating principles and viewpoint, to develop and co-ordinate the different opinions and judgments through questioning and discussion with the other members, to reconcile and record results, and, in general, to assure that the ratings are sound and impartial, reflecting the true facts. As all judgments are obtained from the supervisory members of the group, the staff chairman need not necessarily be familiar with the individuals rated. In order to do a good job, all raters are given advance notice of those to be rated, together with copies of the rating forms on which they may indicate their tentative opinions prior to discussion at the meeting. In order to avoid preconceived judgments, previous ratings should not be referred to until after the new ratings are completed.

In appraising the more important managerial and executive positions on this basis, it is usually desirable for the director of personnel to function as the impartial chairman, soliciting and co-ordinating the judgments of the several higher executives in best position to appraise the performance and capabilities of the individuals in question. This arrangement has precedent in two of the companies surveyed. In one, the director of personnel, in collaboration with the sales vice-president and general sales manager, recently rated all district sales managers and reviewed the ratings with the president; in the other, the vice-president in charge of personnel, in collaboration with the appropriate executives concerned, each year rates the top two hundred and fifty executives in the company.⁶

⁶*Top-Management Organization and Control, op. cit.*, pp. 121-122.

SELF-RATING

The executive is self-directing in many respects. He must constantly judge his own performance as well as that of others. He must educate himself, correct his own weaknesses, and develop new habits of thought and action. This occurs to a considerable extent in an unsystematized manner from day to day. It might be done more systematically by means of self-rating devices. For self-rating, however, a check list is somewhat better than a graphic rating form. The following questions illustrate the possibilities of such a check list. The reader will find it interesting to check his opinions of himself against these questions. The key to the list herewith presented appears in the appendix on page 522. Those now in executive positions and aspirants to executive positions may find that self-improvement can be aided through the accumulation of additional self-checking questions jotted down from day to day. Many of the statements in this book will suggest questions.

To anyone who understands executive ability the significant answer to some of the questions included in the accompanying check list will be obvious. However, such a check list is not a test to determine knowledge of the significant answer—it is a device for guiding self-analysis. Honest self-evaluation through the use of a check list lays the groundwork for self-improvement, a topic which is covered in a later chapter. The reader may find it profitable to have other persons rate him on the questions contained in the list. Do not quibble over the fact that you are required to answer “yes” or “no.” Select the answer that most nearly describes your actions.

EXECUTIVE CHECK LIST FOR SELF-EVALUATION

1. Are people who work with you inclined to “take it easy”? . . . Yes No
2. Do you have an abundant supply of energy? Yes No
3. Do you find it considerably easier to think up plans than to carry them out? Yes No
4. Do you have the determination to see a thing through once it is undertaken? Yes No

5. Do you require a great deal of encouragement to undertake something which you think is worthwhile? Yes No
6. Can you encourage others to help you carry out difficult undertakings? Yes No
7. Do you often regret that you have undertaken a task once it is underway? Yes No
8. Can you keep plugging away at an undertaking in spite of temporary defeat? Yes No
9. Are you frequently fearful that things which you undertake will not turn out well? Yes No
10. Can you take the consequences of failure to accomplish a purpose? Yes No
11. Do you usually seem so busy that you do not get done the things which you wish to accomplish? Yes No
12. Do you prefer to tackle a tough job and get it over with rather than postpone action? Yes No
13. Are you intensely interested in a few things to the exclusion of most everything else? Yes No
14. Are you usually interested in things that interest other people? Yes No
15. Do many people appear to feel that the things you are trying to do are unimportant? Yes No
16. Does your work attract attention and favorable comment from others? Yes No
17. Is your knowledge highly specialized or limited to one or two fields? Yes No
18. Are you able to combine information from several different fields of knowledge in arriving at a conclusion?..... Yes No
19. Must you read a book yourself in order to understand it, even though someone else tells you the nature of its contents? Yes No
20. Can you scan a page in a book and quickly spot the important points? Yes No
21. Do you have difficulty in making up your mind in deciding the proper thing to do?..... Yes No
22. Do you find it easy to make accurate decisions?..... Yes No
23. Do you worry about certain tasks which face you from day to day? Yes No

24. Can you assume responsibility without feeling that you are overburdened? Yes No
25. Do you worry about the possible consequences of your actions? Yes No
26. Can you assume an attitude of, "That's my position, come what may"? Yes No
27. Do you feel that people of certain races are, on the whole, less trustworthy than the general run of people? Yes No
28. Do you find it necessary to revise your opinions on important matters at times? Yes No
29. Is a great deal of pressure necessary to start action on your part? Yes No
30. Can you lead a group in a new undertaking? Yes No
31. Do you prefer that suggestions for new ideas come from several other sources before you concern yourself with them?.. Yes No
32. Are you constantly thinking of new ways of doing things?.. Yes No
33. Do you prefer to have someone else organize work and tell you the part you are to do? Yes No
34. Can you arrange details of a new undertaking and assign responsibilities to others? Yes No
35. Once an undertaking is underway do you let it survive or fail on its own merits? Yes No
36. After you have assigned responsibilities to others, do you follow up to see that they are being discharged? Yes No
37. Do all of the elements in a problem appear to you to have equal importance? Yes No
38. In a troublesome situation can you put your finger on the chief source of trouble? Yes No
39. In solving arithmetical problems must you write out the problem on a sheet of paper before arriving at a solution?... Yes No
40. Can you make mental calculations as quickly as most people can do them on paper? Yes No
41. Do you find that bluffing frequently pays? Yes No
42. Can you usually persuade people to do the things you want done? Yes No
43. Do you often find that you have sized up people incorrectly? Yes No

44. Are you usually accurate in judging which of two people is superior? Yes No
45. Do you prefer to work alone rather than co-operate with others? Yes No
46. Can you work successfully with a committee? Yes No
47. When you try to teach someone else does it appear that they are frequently slow to catch on? Yes No
48. In teaching someone, can you usually prevent them from making foolish mistakes? Yes No
49. Do you have a hard time convincing others of something which you feel quite sure is right? Yes No
50. Do people show confidence in your judgment? Yes No
51. Do you find it easier to act according to hunches than according to a carefully thought out plan? Yes No
52. Can you direct your actions by reason rather than impulse?.. Yes No
53. Do people frequently argue with you when you make suggestions for them to act upon? Yes No
54. Do you like to transmit orders to others? Yes No
55. Do you prefer to work where you are responsible for your own tasks and other people are responsible for theirs? Yes No
56. When others are working under your direction, do you see to it that they perform their work properly? Yes No
57. Would you prefer to take instructions from others rather than give them? Yes No
58. Do you like to decide questions for other people? Yes No
59. Do you have a reputation for using snap judgments? Yes No
60. Can you accept suggestions from others? Yes No
61. Does it bother you to be obliged to keep several ideas in mind at the same time? Yes No
62. Are you frequently asked to pass judgment on plans or work done by other people? Yes No
63. Would you prefer to be a production engineer rather than supervise groups of workers? Yes No
64. Can you distribute work among others so that each person gets the job he is most capable of doing? Yes No
65. Would taking responsibility for arranging and carrying out plans for a club picnic cause you considerable worry? Yes No

66. Can you successfully defend your course of action once it is decided upon? Yes No
67. Do you find that "passing the buck" is an easy way to escape criticism? Yes No
68. Are you usually able to exercise self-control? Yes No
69. When faced with a new problem, do you like to get the opinions of others on the proper action rather than solve the problem yourself? Yes No
70. Can you co-ordinate several different activities so that all will keep going forward? Yes No
71. When you give someone else authority to carry on an activity for you, are you on edge for fear he will bungle the task? Yes No
72. Do you frequently jot down ideas for future reference as they occur to you? Yes No
73. Do you frequently suspect that someone else is trying to "steal your stuff"? Yes No
74. Do you take full responsibility for your decisions once they are made? Yes No
75. Do people frequently resent the questions you ask them? Yes No
76. Do you like to hold authority if considerable responsibility goes with it? Yes No
77. Are you nervous when talking to superiors? Yes No
78. Can you get others to work together in a friendly manner?.. Yes No
79. Do others often appear to feel that you are conceited?..... Yes No
80. Can you make other people believe that the work they are doing is highly important? Yes No
81. Do people often try to take advantage of you because you are easy to get along with? Yes No
82. Do you like to help other people get ahead? Yes No
83. Are you usually bored by problems of other people?..... Yes No
84. Can you suggest ways of self-improvement to others without offending them? Yes No
85. Would you rather design a product than direct people who are doing office work? Yes No
86. Do you feel at ease in a crowd of important people? Yes No
87. Do you believe that people's actions are usually based on careful thinking? Yes No

88. Are people often inclined to confide in you for reasons that you can't explain? Yes No
89. Do you think that the best way to get people to do good work is to make them afraid of losing their jobs? Yes No
90. Do you try to get at the facts in a situation? Yes No
91. Do you feel that you must make a show of effort to impress people? Yes No
92. In considering the facts in any case, do you try to group them before making interpretations? Yes No
93. Do you usually feel that you are working right up to the last unit of your energy? Yes No
94. Do you usually try to attract attention to yourself when you are in a group? Yes No
95. Do feelings of fatigue frequently cause you to lose enthusiasm for your work? Yes No
96. Can you distinguish between fact and opinion? Yes No
97. Are you usually on guard to protect your dignity? Yes No
98. Can you present a topic enthusiastically without becoming effusive? Yes No
99. Do you try to maintain a stern countenance in order to create respect? Yes No
100. Do you have a reserve supply of energy greater than that of most people? Yes No
101. Do you sometimes assume a gruff manner in order to secure compliance with verbal orders? Yes No
102. Can you arouse enthusiasm in others? Yes No
103. Do you lose your self-control in emergencies? Yes No
104. Can you make people feel at ease? Yes No
105. Do you frequently feel it is necessary to "put people in their place"? Yes No
106. Can you remain calm when several urgent matters require your attention? Yes No
107. Do you prefer to receive requests from others in writing rather than in person? Yes No
108. Are you approachable? Yes No
109. Are you likely to be optimistic one day and pessimistic the next? Yes No

RATING EXECUTIVE QUALITIES 125

110. Do people frequently imitate you? Yes No
111. Do you prefer to turn down requests in writing in order to avoid telling the person face-to-face? Yes No
112. Do you speak deliberately and forcefully? Yes No
113. Do you use big words to impress others? Yes No
114. Do you go straight to the point in discussing a problem with others? Yes No
115. Do you use slang to impress others that you are a "regular fellow?" Yes No
116. Are you mild but firm in making requests of others? Yes No
117. Do you frequently say to others: "Draw your own conclusions"? Yes No
118. Do you speak in public with a feeling of self-assurance? Yes No
119. Do you believe it is safer to give hints than to be frank in speaking with others? Yes No
120. Do you welcome suggestions from others? Yes No
121. After you have made up your mind do you refuse to listen to contrary opinions? Yes No
122. Do you believe that: "To become a master of men one must first master himself"? Yes No
123. Do you feel that people are often unjustly suspicious of you? .. Yes No
124. Can you make allowances for differences of ability in people? Yes No
125. Do you frequently offend people unintentionally?Yes No
126. Are you good at remembering names and faces? Yes No
127. Do you frequently revise decisions after they are made? Yes No
128. Do you make it a point to use another person's name in addressing him? Yes No
129. Do you try to "pay back" people who have done you an injustice? Yes No
130. Can you listen to complaints without showing annoyance? .. Yes No
131. If someone approaches you on a matter previously discussed, do you frequently say, "The case is closed"? Yes No
132. Can you stimulate good-natured rivalry in others? Yes No
133. Do you keep jogging people who are working for you to get them to hurry up and get the job done? Yes No
134. Can you stimulate self-confidence in others? Yes No

135. Do you feel that it is wise to display a free-and-easy attitude toward responsibilities in order to save wear and tear on nerves? Yes No
136. Can you arouse ambition in others? Yes No
137. Do you think most people are pretty dumb? Yes No
138. Do you feel that since you have capacity to get things done you should seek opportunities to get ahead? Yes No
139. Do you feel it necessary to "crack down" on another person working for you who appears to be loafing? Yes No
140. Can you develop further reasons for undertaking a project on which you have previously failed to receive approval? Yes No
141. Do you think it is a good idea to "keep people guessing" as to whether they are giving satisfaction in their work? Yes No
142. In conversation with others do you often make reference to their friends and family? Yes No
143. In an argument do you raise your voice? Yes No
144. Can you say no to a request without apologizing for your refusal? Yes No
145. Do you feel that you get better co-operation when you command people to do something than when you request them to do it? Yes No
146. Are you careful to avoid public display of personal habits which might be offensive to others? Yes No
147. Do you find it difficult to praise others? Yes No
148. Do you try to stimulate others to think for themselves? Yes No
149. Do you find it difficult to criticize others? Yes No
150. Do people think you are "on the level"? Yes No
151. Do you prefer extremely intimate acquaintances with a few to broad general acquaintance with many? Yes No
152. Do you strive to maintain a neat, clean, well-groomed appearance? Yes No
153. Do you find it difficult to break old habits or give up old routines? Yes No
154. Do you try to be fair and just in your dealings with others? .. Yes No
155. Does it bother you to have people imitate your ways of doing things? Yes No
156. Are you willing to work harder than the average person? ... Yes No

157. Do you find it difficult to change pace in order to secure relaxation in your work? Yes No
158. Do you try to develop habits which will make it possible for you to handle routine matters without giving them much thought? Yes No
159. Do humorous situations involving people often appear to be silly to you? Yes No
160. Do you find routine work relaxing after you have devoted considerable mental effort to the development of a new project? Yes No

EXECUTIVE ATTITUDES TOWARD RATING SCALES

Executives are sometimes called upon to make decisions which determine whether or not rating scales are to be used. It should be kept in mind that rating scales are of value only in securing estimates of qualities that cannot be measured more objectively. If a job calls for a six-foot man, use a yardstick. If the job involves lifting objects of a given weight, try out the prospective worker on weight lifting. If a knowledge of accounting is essential, administer an accounting achievement test. Unfortunately courtesy, tact, adaptability, and other less tangible elements of personality and character cannot be accurately measured. For such traits rating devices and systematized judgment insure minimum error and maximum accuracy in evaluation. The better the scale the better job a rater can do, but no matter how perfect the scale may be it still is only an instrument in the hands of the person who uses it. Executive supervision over rating implies that attention will be given to the various precautions and suggestions presented earlier in this chapter. Any reasonably competent person tends to improve as a rater if a suitable scale is used and if he is given an opportunity to observe the success or failure of individuals he has selected through the use of the rating scale.

Sometimes an executive is confronted with a situation involving a man who has a special gift for "sizing-up" people. Some men have shown special genius in looking over candidates and selecting for employment or promotion the one which they have

"thought" would be the best. This, in reality, is a crude method of rating, and the value of a rating scale in such a case may be questioned. However, it should be pointed out in such instances that use of a rating scale would not destroy the ability to judge, and it might improve judgment. Furthermore the use of rating scales by such persons would have extreme value in establishing a pattern and in leaving a record to guide others who may succeed such men and who may have no such gift.

Rating establishes a record against which objective test results and other information can be periodically checked and success on the job reviewed. Much of the difficulty in conducting research on personnel problems lies in the fact that most companies have failed to maintain personnel records beyond the point of immediate needs. If more adequate records were maintained, much experience which is now being lost as present employment managers die or retire would be crystallized in objective form for future use. The only way that rating procedures, testing, or any other personnel practice can be improved is through careful checking against success or failure of the worker on the job. If, for example, it should be discovered that a large percentage of all men dropped from payrolls in a given company during a five-year period showed the same characteristics as marked on a rating form, or answered certain test questions in a similar manner, that would indicate high prognostic value for the rating form or test questions. Such information could be used in selecting or promoting future candidates. On the other hand, the collection of personnel information that shows no relation to success or failure could be discontinued.

Executives should be intensely interested in improving the quality of personnel under their supervision. This may be done by careful selection and training. However, human nature is subject to improvement. Qualities which do not exist to a satisfactory degree can frequently be developed. Rating scales aid in the discovery of characteristics wherein improvement may be possible. Executive decision, therefore, should encourage the use of rating

scales as a means of measuring progress and as a tool for upgrading. To some extent it may be wise executive decision to use rating devices to provide information on the nature of weaknesses that prevent employment of new applicants. Some persons who are refused employment may, if told specifically the reason for the refusal, find ways of improving themselves, return at some later time with the deficiency corrected, and become satisfactory employees. There is too little talent in the world, and desirable characteristics do not exist in sufficient amount to satisfy the needs of business and industry. An executive philosophy which encourages the development of desirable traits is far-sighted, inasmuch as it represents an attempt to create a vital resource, namely, human capacity, a resource without which all others would be valueless.

Measurement of Executive Traits

IN THE PAST IT HAS BEEN A COMMON PRACTICE IN AMERICAN INDUSTRY to choose executives from among men who "grew up with the firm." In many instances this procedure has proved to be a highly successful one. It may be seriously doubted that the method deserves the reputation which it enjoys; however, argument on that point would be fruitless since this process of selection is being discarded for several reasons, among which the following are the most important:

1. It is no longer possible for managers, owners, or directors to know intimately all of the men whose abilities make them suitable candidates for executive positions.
2. It is often necessary to select executives outside the personnel of the firm.
3. College graduates are being chosen for training and development along executive lines.

TESTS AND EXECUTIVE SELECTION

Since executives must be developed with great rapidity in the intensely competitive business world of today, elaborate training programs have been set up by several large firms. Smaller firms carry on modified executive development work. Potential executives are usually routed through a program of work activities, placed at strategic points where they can be observed and rated, and often are given special instruction. The process is an expensive one. Selection of a poor candidate means unnecessary expense for the firms, and results in discouragement of the candidate. Most

concerns operate on a very narrow margin of profit even under the best market conditions. Poor executive ability which creeps in as a result of incompetent selection reduces efficiency to a point where profits become impossible.

More objective and balanced selection techniques for executives are being sought by business organizations as a matter of economy and financial efficiency. Tests of various types have been applied. While satisfactory results have been obtained in a few instances, some attempts at measurement of executive ability have not been encouraging. This disappointment can frequently be traced to a lack of understanding of the experimental procedures necessary in the development of valid devices for measuring human capacities.

Psychological examinations or tests can be classified in many ways. For our purposes we shall consider such tests under the following headings: special ability tests, general ability tests, trade tests, interest tests, and personality tests. Because of widespread interest in tests, the more important methods of psychological measurement will be evaluated in this chapter; the chapter which follows will be devoted to consideration of specific application.

SPECIAL ABILITY TESTS

Special ability tests are designed to measure specific abilities or aptitudes. Aptitude is defined as: "A condition or set of characteristics regarded as symptomatic of an individual's ability to acquire with training some (usually specified) knowledge, skill, or set of responses, such as the ability to speak a language, to produce music, etc."¹ Aptitude is forward-looking. It implies a present condition, a pattern of traits which is indicative of potentialities. Evaluations of a person's aptitudes indicate the possibility or likelihood of future development; they are "appraisals of predisposition, inclination, readiness, suitability, or aptness for the pursuit in question."²

¹Warren, H. C. *Dictionary of Psychology*. Houghton Mifflin, 1934.

²Bingham, W. V. *Aptitudes and Aptitude Testing*. Harper, 1937, p. 23.

In a special ability, or aptitude, test, samples of behavior relating to specific abilities are obtained. While these show what the individual is today, they are of greatest value in making estimates of future possibilities.

This is the gist of the theory of aptitude testing. Measure selected samples of a person's behavior, and then, by referring to the facts as to what others who have been tested have done subsequently, compute the probabilities that he, too, will behave in a certain manner . . . Aptitude tests do not directly measure future accomplishment. They make no such pretense. They measure present performance, then insofar as behavior past and present is known to be symptomatic of future potentialities, the test data supply a means of estimating those potentialities. The estimate is necessarily in terms of probabilities only.³

Pioneer work in the development of tests for aptitude measurement was done by Seashore in developing tests to measure musical talent.⁴ Link found certain tests to be helpful in the selection of piece-workers, packers, and inspectors in a munitions factory during the first World War.⁵ Viteles and others, departing widely from the early work of Hugo Munsterberg, have developed motor reaction tests which correlate satisfactorily with ability to operate street cars and other vehicles under varying traffic conditions.⁶ Within recent years a considerable number of early experiments were reviewed and new techniques developed for the measurement of mechanical aptitudes at the University of Minnesota.⁷ For twenty years or more investigators have been seeking to develop clerical and secretarial aptitude tests and have met with a relatively high degree of success.⁸ Promising experimental work has been done in exploring the possibilities of developing aptitude

³Bingham, W. V. *op. cit.*, p. 22.

⁴Seashore, Carl D. *Measurement of Musical Talent*. Silver Burdett, 1919.

⁵Link, H. C. *Employment Psychology*. Macmillan, 1919.

⁶Munsterberg, Hugo. *Psychology and Industrial Efficiency*. Houghton Mifflin, 1913.

Viteles, M. S. *Industrial Psychology*. W. W. Norton, 1922.

Cleaton, Glen U. *Motor Ability Test*. American Transit Association (New York), 1942.

⁷Patterson, D. G. *Minnesota Mechanical Ability Tests*. University of Minnesota, 1930.

Stenquist, John L. *Measurement of Mechanical Ability*. Columbia University, 1923.

⁸For a review of clerical aptitude studies see Stead, William H. and others. *Occupational Counseling Techniques*. American Book Company, 1940. Chapter 23. Also Bingham, W. V. *op. cit.*, Ch. 13.

examinations for professions, such as engineering, law, medicine, dentistry, nursing, and teaching.⁹

Special ability tests do not lend themselves readily to the measurement of executive ability for the reason that executive ability, regardless of its elements, appears to be a generalized one with a high personality component. The authors have developed a vocational aptitude examination which contains tests that have relation to executive ability when taken as a whole, but the various tests in the battery are not differentiating when taken singly.¹⁰ Further experimentation may lead to the discovery of special ability elements which can be measured and the results used in predicting executive success. For the present, combined results of special ability, general ability, interest, and personality measurement provide a better basis for prediction.

GENERAL ABILITY TESTS

Various forms of general ability tests are used in the selection of factory and office workers. Such tests are usually referred to as general intelligence, mental ability, or mental alertness tests. The first standardized mental ability examination was compiled by Alfred Binet, a French educator. Binet began his studies about 1900, and his test was published in final revision in 1911. This is an individual examination prepared at the grade-school level which, in various American revisions, has been widely used in schools. The Binet test (best known revision used in the United States is the Terman-Stanford Revision) must be administered orally and individually, consequently it becomes somewhat expensive when industrially applied.

For the purpose of general ability measurement in business and industry, group tests are preferred. The first generally used group test, the famous Army Alpha Test, was developed in connection with the first World War as an outgrowth of the experi-

⁹Bingham, W. B. *op. cit.*, Ch. 14 and 15.

¹⁰Published by Psychological Corporation, 552 Fifth Avenue, New York City. See Chapter VI for description.

ments originally conducted by A. S. Otis.¹¹ A vast number of group tests suitable for commercial use have been developed, the best known of which are the Otis Self-Administering Test of Mental Ability, Carnegie Bureau or Personnel Research Test VI, Wonderlich Personnel Test, and revised forms of the Army Alpha Test. All of these are modifications or extensions of the original Otis materials.¹² General ability tests have been found to be valuable in selecting employees when used in connection with other tests or measures of ability.

In an experiment to determine the validity of intelligence tests when used to predict executive ability, Bingham and Davis found that the results of such tests when taken alone were inadequate.¹³ Scott and Clothier report experiments with general ability tests in determining the relative merit of groups of minor executives. Commenting on the results of these experiments, they state:

Managers who know their minor executives well, and who are good judges of men, can estimate future success better than can mental alertness tests. But men who do not know their subordinates well, or who are not good judges of men, cannot estimate future success as well as may be indicated by mental alertness tests.¹⁴

General ability tests find their highest correlations with aptitude for learning from books or scholastic aptitude. There is, however, a demonstrable relationship between occupations of various types and level of general mental ability. Engineers, physicians, lawyers, cost accountants, teachers, ministers, and members of other professional groups earn the highest average scores on such tests. Office workers, persons holding responsible commercial positions, skilled workers, semi-skilled workers, and unskilled workers rank successively lower, on the average, in such tests in the order named. The best available evidence indicates that major executives

¹¹Hull, Clark L. *Aptitude Testing*. World Book Company, 1928, pp. 16-18.

¹²For a list of intelligence, clerical, mechanical, personality, and interest tests which have won favor in industry, see *Experience With Employment Tests*, Studies in Personnel Policy No. 32, National Industrial Conference Board, 1941, pp. 70-72.

¹³Bingham, W. V. and Davis, W. T. "Intelligence Test Scores and Business Success," *Journal of Applied Psychology*, Vol. 8, 1924, pp. 1-22.

¹⁴Scott, W. D. and Clothier, R. C. *Personnel Management*. Shaw, 1923, p. 279.

rank with professional people on general mental ability tests and minor executives rank with office and other commercial occupation groups.¹⁵

General ability tests usually contain test questions or items which require the person taking the test to do mental work involving verbal, numerical, spatial, form, and inferential mental manipulation. They call into play observation, attention, memory, imagination, and reasoning. They usually emphasize the abstract phases of intelligence and fail to emphasize the mechanical and social elements. Likewise they place little emphasis on individual interests or personality characteristics. For these reasons an executive aptitude examination should be much broader than the type of examination usually used for the measurement of general mental ability or intelligence.

TRADE TESTS

Aptitude tests place emphasis on capacity or competency and provide the basis for making inferences concerning the candidate's potentialities. Frequently it is necessary to know the degree of attainment of a person; for this purpose achievement tests have been developed. The commonest example of achievement tests are standardized examinations in school subjects. Normally, school subject achievement tests have less significance for occupational selection purposes than do general and special ability tests. However, other types of achievement tests, those which measure occupational proficiency, are extremely useful in selecting candidates for occupations requiring specialized knowledge or skills. Such tests, when used for industrial selection, are called trade tests. This type of test first came into prominence as a result of work done by army psychologists during the first World War.¹⁶ Oral, written, graphic, and performance techniques are used in administering trade tests. Applications of trade tests have recently been greatly

¹⁵Bingham, W. V. *op. cit.*, Ch. 5.

¹⁶Chapman, J. C. *Trade Tests*. Holt, 1921.

Burt, H. E. *Principles of Employment Psychology*, Harper, 1942, Ch. XIV.

extended by the United States Public Employment Service in its occupational research program.¹⁷

While much of the work on trade tests relates to skilled and semi-skilled factory occupations, the trade test method has been extensively applied in the selection of clerical workers, stenographers, typists, and other office workers.¹⁸ Some phases of executive work might be measured by achievement tests, but such tests would, of necessity, be developed along lines applicable to particular companies and relating more specifically to minor executive jobs.¹⁹

INTEREST TESTS

Regardless of ability or attainment, sustained occupational effort becomes difficult, if not impossible, when interest or desire is lacking. If an undertaking is attacked with zeal that generates great industry, much will be accomplished even though basic ability and attainment are only average. On the other hand, outstanding ability or proficiency become meaningless if interest does not generate energy output. It is doubtful whether interest or industry ever provide compensation for mediocrity, but interest does multiply the effectiveness of whatever capacity may be possessed.

There is a negative as well as a positive phase to interest. In the positive phase of interest there is a tendency to become absorbed in an activity and to pursue it, while in the negative phase aversion is developed which causes the individual to turn away from the object or activity in question.²⁰ While we usually think of interest as being centered around a given object or activity, it is

¹⁷Thompson, L. A., Jr. and others. *Interview Aids and Trade Questions for Employment Officers*. Harper, 1936.

Stead, W. H. *op. cit.*

¹⁸Kornhauser, A. W., Kingsbury, F. A. *Psychological Tests in Business*. University of Chicago Press, 1924.

Experience With Employment Tests. op. cit., pages 18-20, 25, 29.

¹⁹In conducting experiments within a company on special ability, general ability, or achievements tests, certain methods and procedures have been found to yield the most satisfactory results. For a discussion of these methods see Hull, C. L. *op. cit.*, pp. 281-490.

²⁰Hoppock, R. *Job Satisfaction*, Harper, 1935,

probable that this outward singularity of interest manifestation is, in reality, a summation of a number of appreciations and aversions. Not until interest measurement began to explore the possibility of itemization or serialization of likes and dislikes, feelings of pleasantness and unpleasantness, was it possible to make progress in the measurement of this important characteristic loosely referred to as interest.

In the same manner that ability and proficiency tests seek to identify behavior patterns, interest tests have been developed which seek to identify inclination patterns. Within recent years interest tests have been used successfully to differentiate the inclination patterns of occupational groups. Such tests are an outgrowth of a series of investigations begun in 1919 by members of the Bureau of Personnel Research at Carnegie Institute of Technology. In general, tests of this type depend for their significance on the existence of occupational interest patterns which can be identified through alternative answers to questions covering a broad range of likes and dislikes. A dozen or more persons using techniques developed by E. S. Robinson, (1919), B. V. Moore (1921), Max Freyd, (1922), and M. J. Ream, (1924), at the Carnegie Bureau of Personnel Research, have contributed to the development of interest measuring devices.²¹

Interest tests are, in reality, attitude tests. They do not seek to measure directly motives, incentives, or drives, but do appear to measure the likelihood that an individual will make a satisfactory adjustment in a given type of occupational activity among people with similarly developed interest patterns. Sources of satisfaction in the discharge of occupational duties have been found to include the kind of information one must use, the social standing or reputation of the occupation, the kind of people with whom one is associated, the kind of traits one must display, whether the occupation involves dealing with people or dealing with things, the mental effort involved, the physical effort involved, special working

²¹Fryer, Douglas. *Measurement of Interests*. Holt, 1941, Ch. 3 and 4, Burt, H. E. *op. cit.* Ch. XI,

conditions, security, income possibilities, opportunities for expression of ideals, possibilities for personal recognition, hazards, opportunities for progress or growth, and the general nature and multiplicity of activities making up the job. The items in interest tests, therefore, relate directly or indirectly to those things toward which satisfaction, indifference, or repugnance may be developed.

Vocational interest examinations or inventories may be scored for separate occupations or for occupational groups or families. The first interest tests developed were scored for separate occupations. The Strong Vocational Interest Blank is the outstanding illustration of an interest test using this type of approach.²² Through its use it is possible to differentiate interest patterns similar to persons in such occupations as architect, accountant, chemist, engineer, physician, real estate salesman, teacher, and many others. The Cleeton Vocational Interest Inventory was the first to be developed on the basis of occupational group factors and to use occupational families as the basis for scoring.²³ Several other vocational interest inventories of merit are also available.²⁴

The application of interest test methods to executive groups shows a considerable degree of overlapping of interests between executives and other occupational groups. For example, it has been found that certified public accountants, personnel managers, engineers, life insurance salesmen, and lawyers have interests that are similar to those displayed by executives. This is interesting in view of the fact that accountants, engineers, insurance salesmen, and others, when compared with each other, show distinctly varying interest patterns. It would appear, therefore, that executive interests are extremely broad in nature and are not limited to any given occupational pattern. A few occupational groups, such as artists and ministers, appear to contrast in interest with executive groups which suggests the possibility that those occupations related to

²²Validated by E. K. Strong, Jr., published by Stanford University Press, 1927.

Keys for several occupations and for occupational groups are now available for this test.

²³Published by McKnight and McKnight, Bloomington, Illinois, 1935, rev. ed., 1943.

²⁴Greene, E. B. *Measurement of Human Behavior*. Odyssey Press, 1940, Ch. 15.

"Experience with Employment Tests." *op. cit.*, pp. 38-39.

business problems are more likely to attract persons whose interests are corollary to those of executives. E. K. Strong, who has made a comprehensive investigation of executive interests, concludes that executives do not constitute a homogeneous interest group in the same manner as do other occupational groups.²⁵ The relation of executive interests to those of other occupational groups based on data reported in Strong's investigation, is shown in Table 3.

TABLE 3
RELATION OF VOCATIONAL INTERESTS OF EXECUTIVES TO
OTHER OCCUPATIONAL GROUPS

<i>Occupational Groups</i>	<i>Per Cent Having Interests of Executives</i>
All non-executives	70
Certified public accountants	90
Personnel managers	88
Engineers	84
Insurance salesmen	82
Lawyers	80
Ministers	43
Artists	22

A SAMPLE INTEREST TEST

The reader who wishes to experiment briefly with interest measurement may check his interests against the following items. Prepare a series of spaces numbered 1 to 100 on a separate sheet of paper to avoid marking your book. Determine your attitude toward the occupations, school subjects, and other things listed

²⁵Strong, E. K., Jr. "Vocational Guidance of Executives," *Journal of Applied Psychology*, Vol. 11, pp. 331-347, 1927.

below. Be perfectly frank. Do not consider anything except your likes and dislikes. Mark with + the things you like or think you would like; mark O those things you do not like. Answer all items. If your knowledge is limited concerning any item, answer to the best of your present knowledge. Work rapidly; your first impressions are desired. Do not omit anything. Many of the seemingly trivial and irrelevant items are useful in diagnosing your real attitude.

Series A

1. Army officer()
2. Auctioneer()
3. Bank cashier()
4. Building contractor()
5. Buyer of merchandise ... ()
6. College teacher()
7. Corporation president ... ()
8. Efficiency expert()
9. Employment manager ... ()
10. Factory manager()
11. Hotel manager()
12. Inventor()
13. Journalist()
14. Lawyer()
15. Labor arbitrator()
16. Manufacturer()
17. Office manager()
18. Owner of small business..()
19. Physician()
20. Purchasing agent()
21. Private secretary()
22. Real estate agent()
23. Research worker()
24. Retail store manager.....()
25. Sales manager()
26. Secretary Chamber of
Commerce()
27. Social worker()

Series B

31. Algebra()
32. Bookkeeping()
33. Botany()
34. Business arithmetic()
35. Calculus()
36. Chemistry()
37. Civics()
38. Economics()
39. Commercial law()
40. English composition()
41. Geography()
42. Geometry()
43. History()
44. Languages()
45. Literature()
46. Mechanical drawing()
47. Nature study()
48. Penmanship()
49. Philosophy()
50. Physical training()
51. Physics()
52. Physiology()
53. Psychology()
54. Public speaking()
55. Shop work()
56. Shorthand()
57. Sociology()
58. Spelling()

- | | |
|---------------------------|--------------------------|
| 28. Shop foreman() | 59. Statistics() |
| 29. Stock broker() | 60. Typewriting() |
| 30. Wholesaler() | |

Series C

Series D

- | | |
|--|--|
| 61. Adjusting difficulties of
others() | 81. Conventions() |
| 62. Winning arguments() | 82. Smokers() |
| 63. Managing a publicity
campaign() | 83. Auctions() |
| 64. Entertaining others() | 84. Symphony concerts() |
| 65. Executing plans() | 85. Books on business() |
| 66. Developing an accounting
system() | 86. Educational movies() |
| 67. Making a speech() | 87. Travel movies() |
| 68. Meeting new situations ..() | 88. Social problem movies....() |
| 69. Meeting and directing
people() | 89. "American Magazine" ...() |
| 70. Opportunity for promotion
in work.....() | 90. "Atlantic Monthly"() |
| 71. People who are natural
leaders() | 91. "Life"() |
| 72. People who assume
leadership() | 92. "National Geographic
Magazine"() |
| 73. Progressive people() | 93. "New Republic"() |
| 74. Regular hours for work..() | 94. "Popular Science"() |
| 75. Solving riddles() | 95. "System Magazine"() |
| 76. Solving mechanical
puzzles() | 96. News magazines() |
| 77. Supervisory responsibility () | 97. Luther Burbank, plant
wizard() |
| 78. Teaching adults() | 98. Thomas A. Edison,
inventor() |
| 79. Writing reports() | 99. J. P. Morgan, financier ...() |
| 80. Belonging to many
societies() | 100. John Wanamaker,
merchant() |

A key for scoring your answers appears on pages 522-3 of the appendix.

PERSONALITY MEASUREMENT—GENERAL CONSIDERATIONS

Interest tests measure attitudes which are related to occupational adjustment. Other attitude tests have been developed

which relate to morale, public opinion, and to ethical, social, economic, religious, and political situations. Attitudes thus measured relate, to some extent, to social adjustment. Practical implications of attitudes relating to general social adjustment have not been as fully developed as have those relating to vocational attitudes. This is a promising field of measurement and one which will be discussed further in relation to executive success and employee morale in later chapters.²⁶

The most neglected field of test development so far as industry is concerned relates to the measurement of personality traits. Most people associated with business activities do not realize the vast amount of psychological experimentation and exploration that has occurred in this field in recent years, because experimenters have only just begun to carry their activities far enough to be able to point out the occupational significance of their findings. On the other hand, clinical psychologists have found the numerous devices which have been developed for exploration of personality to be extremely helpful in aiding individuals in making more satisfactory occupational adjustments.

Obviously personality is related to general behavior or conduct. A record of behavior or conduct is, therefore, the most logical basis for evaluating personality elements. Such evaluation is often casual and unsystematic, but through the use of rating scales and carefully controlled situations such appraisals can be made more objective. For example, individuals have been placed in situations in which they have unusual opportunities for cheating, stealing, and other forms of deception.²⁷ After having been confronted with several situations in such experiments it is possible to make comparisons of an individual with group average on the general tendency to lie, cheat, or steal. The only difference between an experiment of this type and real life situations is in the control of the situation. In real life it is difficult to provide comparable conditions; therefore, we must often judge not only the tendency of the indi-

²⁶See Chapters VII, XI, XIII, XIV. Also see Greene, E. B. *op. cit.*, Ch. 16.

²⁷Greene, E. B. *op. cit.*, Ch. 18.

dual to display a certain trait, but also the degree of exposure to which the person under consideration has been subjected.

It is difficult to provide opportunity for a candidate to display various traits of executive personality without placing him under observation on the job. For example, display of initiative, ability to make decisions, assumption of responsibility, and other important executive traits become most clearly evident in a situation calling for the exercise of executive functions. "Try-out" methods have been widely used in the determination of fitness for almost every kind of commercial or industrial job. Providing an opportunity for a trial period in executive work is often impossible. It often becomes necessary, therefore, to judge the personality potentialities of the person under consideration in minor jobs before assigning executive responsibilities.

For the purpose of evaluating executive personality traits the rating scale is probably the best available tool. However, the possibilities of using test methods for determining personality elements should be explored periodically because of the rapid developments which are taking place in the field of personality measurement. Lack of familiarity on the part of executives and prospective executives with the trends and developments in personality measurement warrants a rather broad discussion of the topic despite the fact that applications to industrial selection have to date been quite meager.

PERSONALITY MEASUREMENT—TEMPERAMENT TYPES

Attempts to isolate elements in personality antedate attempts to measure general and special abilities. Pseudo-science contributed astrology, palmistry, physiognomy, and phrenology as systems of character divination, but these have long since been dismissed by scientific students of human nature as having no serious claims to validity. Except to identify them as interesting pastimes or parlor games, their mention in a book of this nature would not be justified if persons of prominence were not frequently mentioned in connection with their practice, for they belong in the same category as

witchcraft and sorcery. As pointed out in an earlier chapter, the study of the relation of physique to emotion, and hence indirectly the extension of that relationship to behavior, is a legitimate field of study. This is suggested by recent findings on physical-emotional relationships, but no practical applications are as yet evident.²⁸

Graphology, another method of character depiction which is a rich field for charlatanism, has not been discarded as being without possibilities. It has been found that a few experienced graphologists can, by using clues revealed by handwriting, specify traits with accuracy somewhat better than chance. However, since the graphologist is not able to convey to others the exact clues by which he arrives at his estimates, the methods which he purports to use are of no value to others. It is quite often true that estimates of character made by graphologists are couched in such general terms that application is more or less universal.

In all historical efforts to delineate personality, whether scientific, literary, or pseudo-scientific, it has been a common practice to attempt to classify people into types.²⁹ An ancient Greek writer, Theophrastus of Eresos (372-288 B. C.), a disciple of Aristotle, believed that humanity could be classified into sixty character types, thirty commendable types and thirty undesirable types. With remarkable literary skill he described some of his characters in language that is applicable today. A comparison of his character delineations with those of later writers who have been acknowledged as outstanding literary craftsmen shows very little improvement in technique in two thousand years. A sample delineation will illustrate the point.

The Loquacious Man is one who will say to those whom he meets, if they speak a word to him, that they are quite wrong, and that *he* knows all about it, and that, if they listen to him, they will learn: then while one is answering him, he will put in, "Do you tell me so?—don't forget what you are going to say"; or "Thanks for reminding me," or "How much one gets from a little talk, to be sure!" or "By-the-bye," or "Yes! you have seen

²⁸Sheldon, S. S. *The Varieties of Human Physique*. Harper, 1940.

²⁹Roback, A. A. *Psychology of Character*. Sci-Art Press, 1927.

it in a moment": or "I have been watching you all along to see if you would come to the same conclusion as I did," and other such cues will he make for himself, so that his victim has not even breathing-time. Aye, and when he has prostrated a few lonely stragglers, he is apt to march next upon large, compact bodies, and to rout them in the midst of their occupations. Indeed he will go into the schools and the palaestras, and hinder the boys from getting on with their lessons, by chattering at this rate to the trainers and masters. When people say that they are going, he loves to escort them, and to see them safe into their houses. On learning the news from the Ecclesia, he hastens to report it; and to relate in addition, the old story of the battle in Aristophon (the orator's) year, and of the Lacedaemonian victory in Lysander's time; also of the speech for which he himself once got glory in the assembly; and he will throw in some abuse of "the masses," too, in the course of his narrative; so that his hearers will either forget what it was about, or fall into a doze, or desert him in the middle and make their escape. Then on a jury he will hinder his fellows from coming to a verdict, at a theatre from seeing the play, at a dinner-party from eating; saying that "it is hard for a chatterer to be silent," and that his tongue *will* run and that he could not hold it though he should be thought a greater chatterer than a swallow. Nay, he will endure to be the butt of his own children, when, drowsy at last, they make their request to him in these terms—"Papa, chatter to us, that we may fall asleep!"³⁰

Although the depiction of personality characteristics by literary means has never been reduced to a science, oral and written characterizations are readily understood by the listener or reader. The characters of the Bible, of Shakespeare, Nathaniel Hawthorne, Charles Dickens, Theodore Dreiser, or Damon Runyon appear genuine to us because we have met people in real life who display some of the traits these characters reveal. The case history method of personality description resembles the literary method, but substitutes factual report for the dramatic and romantic fancies of fiction.

In its simpler form the case history method of analysis depends for accuracy of estimate almost wholly on the insight of the person examining the case history. The interview and application

³⁰Howell, Francis (trans.) *The Characters of Theophrastus*: 280 B. C. London, 1824.

blank both utilize personal history items in the appraisal of personality and to that extent resemble the case history approach. The interview fails in many respects as a means of objective measurement of personality. It not only is a personal appraisal, but seldom follows a standard pattern. There is evidence to indicate that standardized interviews are an improvement on the casual methods usually used.⁸¹ Where it is necessary to estimate personality on the basis of interviews it has also been found that a more objective and valid estimate is obtained by having the interviewer fill out a rating form immediately following the interview.

A reasonably successful method of determining the "type" of person most likely to succeed in one particular occupation, life insurance selling, was developed by M. J. Ream and further extended by the Life Insurance Sales Research Bureau. In this procedure no attempt is made to determine temperament or personality types as such. Instead personal history items which appear on the application form are correlated with success in selling life insurance. In one of these investigations it was found that the personal history items most characteristic of "the successful life insurance sales type" included, among others, the following: has three or four dependents, has previously been an executive in fields other than retail business, has spent six or more years with his present employer, has not been unemployed for more than one month before seeking to engage in life insurance selling, is a member of four or more organizations, has a net worth of \$15,000 or over, feels a need to earn \$200 a month or more to meet current living expenses, carries \$20,000 or more of life insurance, and has spent two months or more trying to make a satisfactory sales connection before accepting employment.⁸² The validated item application form has never been applied to executive selection. It is believed to have possibilities; however, it would chiefly be appli-

⁸¹Bingham, W. V., and Moore, B. V. *How To Interview*. Harper, 1931.

Hoveland, H. C., and Wonderlich, J. T. "Prediction of Industrial Success from a Standardized Interview," *Journal of Applied Psychology*, Vol. 23, p. 537 ff, 1939.

⁸²*Selection of Agents*. Life Insurance Sales Research Bureau, Hartford, 1937.

Ream, M. J. *Ability to Sell*. Williams and Wilkins, 1924. p. 57.

cable to a specific job in a specific company and would provide only part of the answer to the question of executive qualification.

The concept of temperament types probably handicaps measurement of personality. However, as pointed out, the theory is one of long standing and one which still persists in some of the efforts at personality measurement. The oldest of the concepts of personality types was that of Hippocrates (460-370 B. C.), later modified by Galen (131-201 A.D.), which classified mankind into four temperaments. The sanguine temperament was described as being quick and active but somewhat weak in strength of purpose; the choleric, easily aroused, irascible, and strong; the melancholic, slow and pessimistic; the phlegmatic, slow, weak, and stolid.

This time-honored but impractical classification of personality is reflected both in literature and in attempts at scientific study of personality. The famous psychologist, Titchner, made a careful study of classic literary documents in search for examples of the four Hippocratic temperament types.

It is but rarely that modern fiction gives us a delineation of a pure temperament; the complexity of modern life has brought with it a corresponding complexity of character. At the same time most standard novels show us approximations to pure temperaments, especially among the minor figures of the tale. Thus in *The Newcomes* Thackeray has drawn Madame de Florac as melancholic, and Fred Bayham as choleric. Mrs. Hobsom Newcome is sanguine; and Rosey, with her five songs and her dullness to Warrington's jokes, with her unmoved acceptance of her mother's anger and her uncle's death, is a good instance of the phlegmatic temperament. (*Textbook of Psychology*, p. 498) . . . Hamlet and Laertes are respectively melancholic and choleric; Falstaff and the younger Percy, in the first part of *King Henry IV*, are respectively sanguine and choleric; while the scenes between Touchstone and Audrey in *As You Like It* bring the sanguine and choleric temperaments into challenging contrast. (*A Primer of Psychology*, p. 158)

No worthy contribution to temperament definition was made for fifteen hundred years following the announcement of the Hippocratic theory of types. It remained for William James to suggest that personality is many-sided and that the theory of con-

centration or unification of traits into temperament types was one difficult to substantiate. James contended that the personality was made up of many "selves," a self displayed at home, a self displayed in business, a self displayed in pastimes and recreation, a self displayed to intimate friends, a self displayed to strangers, etc. Yet James could not resist the temptation to classify humanity into types. He suggested a division into "rationalist" and "empiricist." He stated that the rationalist or "tender-minded" person is likely to be influenced by principles and abstract ideas and tends to be idealistic and religious, whereas the empiricist or "tough-minded" individual is practical, and is influenced by facts and objective elements in his environment.³³

There is an interesting similarity between the types suggested by William James and those later suggested by Jung, the famous Swiss psychiatrist who was the first to describe the much discussed general attitude types of extrovert and introvert. Jung described the extrovert as being directly orientated by objective data, governed by necessity and expediency, accommodates readily to new situations, somewhat negligent of ailments and care of self, makes adjustments which are compensatory, and is susceptible to the psycho-neurosis of hysteria. The introvert is described as being subjective, governed by absolute standards and principles, lacking in flexibility and adaptability, likely to be over-attentive to ailments and careful of self, makes adjustments which involve withdrawal from social contact, resorts to phantasy, and is susceptible to obsessive or compulsive psycho-neuroses.³⁴

The classification by Jung, while applicable in the extreme to persons who have made abnormal adjustments, has been found useful in describing less extreme display of the characteristic trait tendencies among more or less normally adjusted persons. Several other type classifications have been developed which are based on distinguishing differences observed in people suffering from

³³James, William. *Principles of Psychology*. Holt, 1890.

James, William. *Pragmatism*. Longmans-Green, 1911.

³⁴Jung, Carl G. *Psychological Types*. Harcourt-Brace, 1923.

common forms of mental disorder. The autistic or schizoid type is described as shy, uncommunicative, given to phantasy, displaying a few external interests, and refraining from participation in social activities. The cyclothymic, or cycloid, type readily expresses emotions, is likely to be boisterous, talkative, and unstable. The anti-social personality tends toward malingering and criminal tendencies, and a fourth, the epileptic, is easily aroused to ecstasy, shows single-mindedness of purpose, and flights of fantasy and inspiration.

PERSONALITY MEASUREMENT—BY TEMPERAMENT SCALES

One personality test, the Humm-Wadsworth Temperament Scale, attempts to classify temperament on the basis of the components associated with mental abnormalities. By this scale seven temperaments are presumed to be distinguishable.

1. The normal, which displays a prime tendency of self-control with associated traits such as stability, self-improvement, inhibition, and conservatism.

2. Hysteroid, with a prime tendency of self-preservation carried to the point of selfishness, and associated traits such as lack of compunction or consideration for the wishes of other persons and, in the extreme, criminal tendencies.

3. Cycloid-manic with a prime tendency of excitement and associated traits of elation, drive, self-encouragement, alertness, restlessness, cheerfulness, and sociability.

4. Cycloid-depressive with a prime tendency toward depression and associated traits of sadness, worry, caution, retardation, and low activity.

5. Autistic, with a prime tendency toward daydreaming and associated traits of visual imagery, shyness, seclusiveness, sensitiveness, and high regard for ideals.

6. Paranoid, with a prime tendency of fixed ideas and associated traits of suspicion, conceit, truculence, revenge, argumentativeness, stubbornness, persistence, and aggressiveness.

7. Epileptoid, with a prime tendency toward project-making and associated traits of meticulousness, single-mindedness, inspiration, and ecstasy.³⁵

A similar scale has been developed by a British psychologist which includes the following temperament traits: neurasthenia, anxiety neurosis, anxiety hysteria, compulsive, epileptoid, and paranoid.³⁶

The so-called temperaments isolated by the Humm-Wadsworth Scale may be considered as traits which exist to some degree in the personality make-up of every individual. Here, as elsewhere in the discussion of temperaments related to abnormal tendencies, it should be clearly understood that no tendency is significantly abnormal unless it varies in the extreme from the degree of that tendency displayed by the average individual. An abnormal development of a trait is not necessarily pathological. Abnormal means away from normal, and in psychological terminology does not justify the stigma ordinarily associated with the term in everyday speech.

According to data based on 1,264 industrial cases, Humm and Wadsworth conclude that the temperament pattern most frequently found shows strong tendencies on the temperament characteristics which appear in their classifications as normal and manic. A psychograph of the seven constellations of traits shows that the most often found temperament, in addition to being moderately strong in normal and manic traits, is borderline, tending toward moderately weak in hysteroid, depressive, and paranoid tendencies, and moderately weak in autistic and epileptoid tendencies.

From an examination of individual profiles of Humm-Wadsworth traits it would appear that a person who can successfully work with others in a managerial capacity tends to make higher

³⁵Humm, D. G. and Wadsworth, G. W., Jr. *Temperament Scale*. Doncaster G. Humm, Los Angeles, 1934.

³⁶Cattell, R. B. "Temperament Tests, Clinical Progress." *British Journal of Medical Psychology*, Vol. 16, pp. 42-61, 1936.

than average scores on normal and manic traits compared with the general run of industrial employees, tends to follow the usual temperament pattern on hysteroid, paranoid, and epileptoid traits, but falls below the average on depressive and autistic traits. In contrast, the profile of a troublesome sales executive shows higher than average tendencies on manic, depressive, and paranoid traits with less than average standing on normal traits. On the basis of admittedly incomplete evidence, it would seem that a profile for executives would show the balance displayed by the average of the general population, with higher than average, but not extreme, tendencies in the elements designated as normal and manic.⁸⁷ This interpretation would agree, for the most part, with Mason's findings that the successful executive is a well-rounded, balanced person who possesses outstanding strength in certain contributing traits.

One of the compilers of the Temperament Scale, Wadsworth, cautions against the indiscriminate use of the device. He states that the scale "should be used only by individuals who are conversant with the psychiatric theory upon which it is based, and who are also sophisticated with regard to the possibilities and limitations of modern testing." He further notes that the scale "fares no better under the 'try-ten-cases-and-decide' approach than do other psychological tests." These precautions should be kept in mind in considering the following statements which he makes in reference to the scale.

The Temperament Scale has been used for several years in testing applicants for employment as well as the existing force of the Pacific Lighting Company in Southern California (It) is based upon Dr. Aaron J. Rosanoff's theory of personality as reported in his *Manual of Psychiatry*, sixth edition (Wiley, 1937). This theory presents several groups of traits which appear to operate in combinations frequently enough to afford recognizable classifications of personality or temperament. While Dr. Rosanoff's observations were developed in the practice of psychiatry, the characteristics and traits grouped under his theory are

⁸⁷Humm, D. G., and Wadsworth, G. W. "The Humm-Wadsworth Temperament Scale," *Personnel Journal*, Vol. 12, pp. 314-323, 1934.

thoroughly "normal" in the sense that they are present in some degree in most individuals.

In its industrial applications, the Scale enables us to distinguish individuals who are well balanced, from an all-round point of view, from individuals not so made up. It also enables us to predict the characteristics of the individual which are most likely to manifest themselves in day-to-day relationships on the job. For example, with much better than chance accuracy, we can identify applicants who tend to enter into the working relationships co-operatively, as contrasted to those who tend to be strictly out for themselves. The development of *esprit de corps* in the last analysis depends upon individual readiness to tie in. One worker who hangs back, or who responds only to the appeal of self-interest, can defeat the whole effort to develop and maintain harmony on the job. While everyone is selfish to some extent, an individual who is predominantly concerned with self-interest is, at best, merely not helpful, and at worst sometimes definitely anti-social and dishonest.

The Scale also enables us to distinguish individuals who are emotionally in balance, and capable of meeting and dealing with the public on a satisfactory basis, from those who do not control their feelings and who lack social ability. We can identify the chronic "hot-head" as contrasted with the person who stands up for his rights, but can see that the other fellow has a point too. Other elements in the emotional field, such as tendencies to be depressed, retarded and discouraged are also measured by the Scale. Individuals who chronically look on the dark side tend to hold back those about them, and to impede group effort.

Another group of characteristics measured by the Scale is observed in introvert make-up, where the individual performs well by himself, but does not react well to situations in which he must fit into a group. This may take more than one form. The introverted individual may be shy, retiring and bashful, or he may be arrogant and unapproachable. In either case, however, he is best off in situations where results depend on his own efforts, rather than upon the combined efforts of a group of people. This type of make-up, like others, "has its uses," but must be identified and carefully placed in the organization.

The Scale, which is essentially a Yes-No questionnaire, was validated by comparing the showing on stated questions of individuals known to possess a given group of traits with the showing made on the same questions by people, who, so far as could be determined, did not possess such traits in any noticeable degree. The responses of extremely anti-social

individuals, for example, were contrasted with the responses of individuals who had fulfilled positions of trust satisfactorily, to questions bearing upon ethics, social responsibility, etc. Highly emotional people were contrasted with those who tend to be phlegmatic. Markedly introvert individuals were compared with marked extroverts. The over-all showing in the Scale is stated in terms of the most predominant characteristics, plus an analytical presentation of the relative showing in all of the components of temperament included in Rosanoff's theory.

Summarized in a few words, the Temperament Scale represents an effort to find out what we can about an individual's "disposition." The facts in this regard are frequently obscured in the sales-talk atmosphere which may prevail in the pre-employment interview. Unfortunately, some of the least adjustable individuals are good at selling themselves "on a personal basis." They are not nearly so convincing in the impersonal situation presented by a standardized test, nor is there much real evidence that the applicant "sees through" the questions, and frames really clever or deceiving answers. In short, the Scale presents a uniform approach in the analysis of applicants for employment. It produces answers which are not likely to be influenced by the like-dislike elements present in the interview.

The Temperament Scale may generally be relied upon in well over 60% of cases, and is of some value in interpreting possibly two-thirds of the remainder. Used in conjunction with information which can and should be secured regarding the previous employment of the applicant, and applied judiciously in locating the applicant in a setting on the job in which his temperament bids fair to be an asset rather than a liability, the Scale performs a very definite service. There is no real evidence that it will detect crooks, but it does single out extremely anti-social persons, whose anti-sociality may operate in a number of undesirable ways, including dishonesty in some cases.⁸⁸

The serious danger that may arise in using this and other personality tests lies in the fact that one may assume that a trait is necessary to the discharge of occupational responsibilities without having substantial proof of the assumption. In applying psychological tests it is dangerous to make such assumptions. It is far better to determine the existence of traits, as was done by Mason,

⁸⁸Wadsworth, Guy W., Jr. "The Humm-Wadsworth Temperament Scale at Work." reported in *Experience with Employment Tests*, op. cit., pp. 58-60.

and then seek ways of rating or measuring those traits. Sometimes it may be expeditious to forget trait names entirely, as was done by Ream and the Life Insurance Sales Research Bureau in the analysis of personal history items obtainable through application forms. The use of personality trait questions without reference to the traits themselves, in setting up evaluating devices, is illustrated by the series of questions appearing on pages 119-127 of this book. For the experience of two organizations in conducting experiments along such lines see pages 167-168.

PERSONALITY TESTS—TRAIT MEASUREMENT

From the foregoing discussion it should be evident that attempts to analyze personality into types have left much to be desired. In fact, it seems reasonably safe to assume that if temperament types exist at all they are much more numerous than is ordinarily supposed, and that they can be recognized only to the extent that a particular trait or a few related traits stand out prominently.

In attempts to define or measure temperament types it has usually been found that the designation of traits is much easier than a classification as to type. Still we must not overlook the fact that each individual functions as a composite personality and displays a multitude of traits in varying degrees. In the final analysis it is probably true that each individual is a separate type unto himself and that the only complete and reasonably true picture of him as a personality which could exist would be a psychograph or individual profile showing his standing in relation to the average person on an extremely large number of traits. The problem for executive personality research would seem, therefore, to be one of determining those traits which are particularly significant in executive functioning, and determining also those traits which may counterbalance or vitiate the traits which have executive significance.

A considerable amount of psychological investigation of personality omits any consideration of temperament types and ap-

proaches the matter from the viewpoint of single traits. Such an approach cannot be carried to a point of complete differentiation for the simple reason that traits, as we know them, overlap each other and function, in the total personality, both as restraining and augmenting influences. These limitations to trait measurement must be kept in mind in considering attempts which have been made to measure personality traits as discrete elements.

In seeking a basis for determining fundamental elements of personality, psychologists have used three principal methods: (1) they have observed the individual's conduct and have drawn conclusions from his behavior; (2) they have asked others to express opinions about the individual being observed; and (3) they have questioned the individual concerning his attitudes, beliefs, and typical reactions or modes of behavior. Try-out, or exposure to a controlled set of conditions, is sometimes used to make observations more objective, and the recording of opinions of others has been made more objective through the use of rating scales. Testing is a logical supplement to these procedures. Questioning the individual concerning his attitudes, beliefs, and conduct has been the basis of a considerable amount of experimentation in personality measurement; however, two difficulties are frequently encountered in questioning an individual concerning himself. It has been found that many individuals are unable to exercise self-analysis in a penetrating sense, and it has also been found that the individual often is reluctant to tell the truth, at least the whole truth, about himself. These difficulties reduce the reliability of personality tests which require the individual to answer questions about himself; however, no fully satisfactory method of obviating these difficulties has been discovered.

PERSONALITY TESTS—ASSOCIATION METHODS

Whether we approach the measurement of personality from the theory of temperament types which implies that personality is an organized co-ordination of all the traits which distinguish one person from another, or attack the problem as one requiring

measurement of separate personality traits which implies that an individual has certain characteristics of reaction that are highly important in social adjustment, we can assume the existence of underlying motivating elements. These elements may be inherent neural predispositions, organic forces, or habit patterns. But whatever their nature they are reflected not only in the conduct of an individual, but also in the mental processes of the individual. However, conventional study of abstract mental processes, such as imagination, attention, perception, memory, and reasoning, does not provide the key to personality. It has long been believed that a clearer understanding of the forces at work in the adjustment to social situations of a given individual might be found if the strength, color, warmth, and context of ideas could be measured.

A method known as "free association" is widely used in the clinical analysis of individuals who have failed to make satisfactory personality adjustments. In this method the subject is asked to respond to a list of one hundred or more carefully selected words such as "hand," "woman," "house," and "trouble." The famous English student of human nature, Galton, used the method to trace certain elements in ideas to early childhood memory.³⁹ The method was later used by many psychologists for similar purposes. As a means of detecting emotional attitudes or "complexes" Jung found the method to be an extremely useful one.⁴⁰ The application of the method to study of pathological mental states was further developed by Kent and Rosanoff.⁴¹ The association method was quickly adopted by persons practicing psycho-analysis as a supplement to the Freudian technique of catharsis, the method of bringing to light disturbing forces by talking about one's troubles.⁴²

³⁹Galton, Francis. *Inquiries Into the Human Faculty*. Macmillan, 1883.

⁴⁰Jung, Carl G. "The Association Method," *American Journal of Psychology*, 1910, pp. 219-269.

⁴¹Kent, G. H. and Rosanoff, A. J. "A Study of Association in Insanity," *American Journal of Insanity*. Vol. 67, 1910, pp. 37-96 and 317-339.

⁴²Psycho-analysis as developed by Freud included catharsis, abreaction, and sublimation. Abreaction in its simplest form consists of discharging one's emotional complexes

The association method, when used in connection with psycho-therapy, becomes a technique for probing submerged elements of memory for the purpose of applying mental therapy. Association responses are used to supplement information provided in case history data, general conversation, dream reports, and evidence drawn from other materials supplied by the patient. The method does not seek to identify specific traits, but is used to bring to light highly motivating, non-adjustive ideation which is frequently found to have repressed subliminal or subconscious context.

In using the association method, responses to key words are noted and made the basis for informal questioning in a search for clues that may have diagnostic value. Unusual responses, associations involving excessively long reaction time, competition between several responses, stereotyped or frequently repeated responses, and failure to report any association of ideas, all supply helpful clues to repressed material. Circuitous associations which lead to a recurring idea are likewise considered to be significant. Outward signs of emotionality on the part of the subject, such as laughing, crying, nervous gestures, and other overt expressions of amusement, embarrassment, or emotional conflict, are noted by the analyst.

Attempts at measurement of personality by the association method have usually centered around the variations in response given by different subjects. Tables showing the frequency of occurrence of specific association responses have been compiled. Kent and Rosanoff were the first to prepare such tables. They tabulated the responses of one thousand persons to one hundred key words

by recalling and telling to an analyst experiences presumed to be related to their origin and development. Sublimation is the transfer of energy from an unconscious drive, usually related to socially disapproved wishes or desires, to a conscious one that is socially approved, such as repression of a socially unacceptable sex drive by conscious direction of activities of a religious, charitable, or benevolent nature. The basic concepts of psycho-analysis are much more involved than these brief definitions would imply. However, for our purposes it is sufficient to note that psycho-analysis is more closely related to psycho-therapy than to the measurement of personality. See Healy, William, Bronner, Augusta F., and Bowers, Anna M. *Structure and Meaning of Psycho-analysis*. Knopf, 1931.

and thereby provided standards for determining the unusualness or commonness of a response. For example, they found that the responses to "dark" most commonly given in trials with one thousand persons were "light"—427; "night"—221; "black"—76. More than one hundred different responses were obtained with varying frequency and these included such words as "boat," "cell," "ghost," "mysterious," "prison," "lonely," and others, each given by only one person in a thousand. About ten percent of the persons to whom their list was administered gave highly individual responses.

In using word association frequency tables unusual responses are recorded and made the basis of further exploration. For example, if a person responds to "table" with an infrequently given association such as "blood," the response is noted and later the subject is asked to provide an association to "blood," and to continue giving a series of associations suggested by the word itself and other words suggested by it. The reader can readily understand the possibilities of piecing together submerged memories if the chain of associations ran something as follows: "table," "blood," "night club," "murder," "police." The manner in which the experience hinted at by the associations relates to emotional conflict and whether it is related to emotional conflict is a problem to be determined by the analyst through further exploration.

Numerous studies of the association technique have been made by Woodworth, Wells, Pressey, Rorschach, Beck, Vernon, Pfister, and others. In some of these experiments ink blots, pictures, colored slips of paper, and other objects have been used for stimulus devices and selected groups of subjects have been compared with other groups. The results obtained indicate that distributions of responses vary considerably with conditions relating to the group of subjects used and that these variations do not always relate to emotional elements. Such factors as sex, maturity, race, locality, occupation, education, vocabulary, special interests, and numerous others appear to have a bearing on the frequency with which a

given response word is obtained. However, highly individualized responses occur regardless of age, sex, experience, or other conditions relating to a particular group.⁴³

For the purpose of personality study it must be concluded that the chief use of the association method is that of detecting underlying causes of maladjustment in individual cases. Since the association method is a highly individual one and since none of the investigations in technique have provided a satisfactory group test, the method has greater possible commercial applications in dealing with problem employees than it has in selection. It is doubtful whether the association technique can be used as a method in determining executive traits. It might be used to determine the existence of attitudes, interests, and information which are related to executive functions. Fortunately there are better methods of determining interest, attitudes, and information.

PERSONALITY TESTS—QUESTIONNAIRES

Psychologists began experimenting with the possibility of standardizing self-appraisal questionnaires about the time of the first World War. Woodworth compiled a psycho-neurotic questionnaire which was used to some extent in the army.⁴⁴ The questionnaire method was extended later by Thurstone and Bernreuter thereby making possible the identification of specific traits relating to personal adjustment.⁴⁵ In the Thurstone questionnaire several items, such as, "Does it make you nervous to have someone watch you while you are working?" were standardized and validated to measure neurotic tendency or general instability, the

⁴³Woodworth, R. S. *Experimental Psychology*. Holt, 1938. pp. 340-367.

Pressey, S. L. *Pressey X-O Test and Manual*. Stoelting, 1921.

Rorschach, H. *Psycho-Diagnostik*. Huber, Bern, Switzerland, 1921. Second ed. 1932.

Beck, S. J. *Introduction to the Rorschach Method*. American Ortho-Psychiatric Association, 1937.

Vernon, P. E. "The Assessment of Psychological Qualities by Verbal Methods," Report No. 83, Medical Research Council, Industrial Health Research Board, H. M. Stationery Office, London, 1938.

Pfister, Oskar. *Psychoanalytic Method* (translated by C. R. Payne). Moffat, 1919.

⁴⁴Woodworth, R. S. *Personal Data Sheet*. Stoelting, 1917.

⁴⁵Thurstone, L. L. "A Neurotic Inventory," *Journal of Social Psychology*, Vol. 1, pp. 3-31, 1930.

Bernreuter, R. G. *Personality Inventory*. Stanford University Press, 1931.

same quality that had been measured in a more abbreviated way in the Woodworth questionnaire. By applying the questionnaire it is possible to determine the extent to which a person is emotionally well adjusted. Using a similar list of questions, Bernreuter standardized and validated scoring keys for four personality traits referred to as neurotic tendency, self-sufficiency, introversion-extroversion, and dominance-submission. Later Flanagan validated scoring keys for the Bernreuter inventory for two additional traits, self-confidence and sociability.⁴⁶

As previously indicated, the difficulty encountered in encouraging a candidate to give frank and truthful statements concerning himself is the greatest weakness of questionnaires of the Woodworth, Thurstone, Bernreuter type. Humm and Wadsworth sought to overcome the difficulty by careful formulation of questions and by intermingling unscored questions among those which have significance. Adams and Lepley have recently compiled a personality test which discourages the giving of misleading answers by presenting activities to which the candidate indicates the degree of liking for an activity, the degree to which he is annoyed by certain things, the degree to which he has experienced fear of certain things, the degree to which he agrees with certain commonly expressed opinions, and the extent to which he has thought about certain things during the past year.⁴⁷ Instead of the usual yes or no answers, provision is made for the valuation of the degree of response. The candidate encircles M, S, L, or N to indicate a great deal, some, a little, or none. Keys for the Adams-Lepley test have been developed for the following traits: sociability, extroversion, suggestibility, irritability, tendency to rationalize, excessive emotionality, sexual conflict, personal intolerance, docility, and tendency to worry.

Use of the choice of answer form of test question in person-

⁴⁶Flanagan, J. C. *Factor Analysis in the Study of Personality*. Stanford University Press, 1935.

⁴⁷Adams, C. R. and Lepley, W. N. *The Personal Audit*. The Psychological Corporation, 1941.

ality tests is illustrated by the Allport Test for Ascendancy-Submission. Instead of yes-no answers to questions, hypothetical situations are stated, and the candidate is given an opportunity to tell what he would do by indicating a choice of four or five alternatives. The relation of this test to executive ability will be discussed later in Chapter VI. It is mentioned at this point to call attention to the fact that making choices among alternative solutions to a given situation is a better method for determining probable behavior than some of the other personality measurement methods.⁴⁸ The Allport-Vernon Scale of Values test is sometimes confused with the A-S Test. The Scale of Values test is an attitude scale which attempts to determine the strength of six motivating factors in individual attitudes—theoretical, economic, social, ethical, political, and religious. This test resembles interest tests previously discussed.⁴⁹

PERSONALITY TESTS—PHYSICAL MEASUREMENT

For many years psychologists and physiologists have experimented with devices which register physiological changes when the subject is in a state of organic, nervous, or emotional excitement. Some of these changes can be observed without the aid of recording equipment, but the use of recording equipment provides greater accuracy and makes possible the measurement of physiological changes which otherwise would not be perceptible. Recording of covert physical responses is the basis of such tests as those commonly referred to as lie-detectors. The device widely used for detection of deception, the Keeler Polygraph, provides for the recording of three types of changes: (1) pulse-blood pressure variations, recorded in the cardio-sphygmograph; (2) electrodermal (skin) variations, recorded in the galvanograph; and (3) respiratory movements recorded in the pneumograph. In inter-

⁴⁸Allport, G. W. "A Test for Ascendancy-Submission," *Journal of Abnormal and Social Psychology*, Vol. 23, 1928, pp. 118-136. The Beckman revision of the Allport A-S Test distributed by the Psychological Corporation is usually preferred for industrial and commercial use.

⁴⁹Allport, G. W., and Vernon, P. E. *A Study of Values*. Houghton-Mifflin, 1930.

preting results of this device it is assumed that emotional experiences such as conflict, repression, suppressed excitement, memories of significant occurrences, or fear of detection are reflected in the physiological disturbances recorded by the apparatus.

Contrary to popular belief, such devices do not directly measure deceit; they record physiological disturbances which presumably have relation to the emotional state produced by the stimuli to which the subject is exposed in the examination. That the use of such devices frequently develops situations that lead to confession of guilt is not indicative of the measurement value of the device, although it does signify practical value. The most reasonable conclusion that can be drawn from reports of the use of these devices in police work is that they provide a more pleasant and refined form of third degree than has usually been employed in the past. Detection of deceit, regardless of the methods and devices used, is related to the cleverness with which stimuli are chosen, the order and manner in which the stimuli are presented, and the ability of the examiner to elicit additional significant information from the subject when an incriminating response has been secured. These comments should not be taken to mean that the use of physiological evidence may not be useful in clinical examination, nor is it implied that further experimentation may not reveal significant applications in personality measurement.⁵⁰

In another kind of experiment it is alleged that neuro-electrical phenomena related to mental activity are amplified and recorded. Electrodes are attached to the cranium and electro-encypholograms or "brain waves" are projected through a cathode ray oscillograph. The electro-encypholograms of the insane have been compared with those of normal persons and certain differences

⁵⁰Marston, W. M. "Systolic Blood Pressure Symptoms of Deception," *Journal of Experimental Psychology*, Vol. 2, p. 117 ff., 1917.

Burt, H. E. "Further Technique for Inspiration-Expiration Ratios," *Journal of Experimental Psychology*, Vol. 4, p. 106 ff., 1921.

Keller, Leonarde. "A Method of Detecting Deception," *American Journal of Police Science*, Vol. 1, p. 42 ff., 1930.

Larson, John A. *Lying and Its Detection*. University of Chicago Press, 1932.

Woodworth, R. S. *Experimental Psychology*. Holt, 1938, pp. 80-89.

have been noted. The pattern of these "waves" have been used in identifying mental pathology and in the prediction of behavior in mental disorder cases, especially epileptic cases. The method has also been used medically as an aid in locating brain tumors. No conclusive evidence is available to indicate personality relationships to electro-encypholograms.⁵¹

The study of electro-encypholograms should not be confused with the work of brain surgeons and neurologists who have been trying for more than half a century to develop an acceptable theory of functional localization of brain cells. The ancient theories of the phrenologists which held that localizations not only existed but were reflected in the shape of the skull have long since been discarded. Later theories which placed sensory, motor, and association functions in clearly defined cortical areas have been challenged by Lashley and others who hold that localization of mental functions in the brain is less specific than was once supposed.⁵²

PERSONALITY TESTS—FUTURE DEVELOPMENT

Recent progress in personality measurement has been reported at length because personality elements are extremely important in executive functioning. Unfortunately only a few of the traits which make up executive ability are measured by any of the tests herein mentioned and then only indirectly. It is possible, however, that some of the tests which are available may have value in executive selection in weeding out the unfit through the identification of non-adjustive traits. Furthermore it seems likely that the vast amount of study which has recently been devoted to personality measurement has laid the groundwork for more practical applications. It is believed that tests of executive traits can be developed

⁵¹Gibbs, F. A. "Interpretation of the Electro-encyphologram," *Journal of Psychology*, Vol. 4, pp. 365-382, 1937.

Davis, H. "Interpretation of the Electrical Activity of the Brain," *American Journal of Psychiatry*, Vol. 94, pp. 825-834, 1928.

⁵²Lashley, K. S. "The Functioning of Small Remnants of the Visual Cortex." *Journal of Comparative Neurology*. Vol. 70, pp. 45-67, 1939.

Lashley, K. S. "Factors Limiting Recovery After Central Nervous Lesions." *Journal of Mental and Nervous Diseases*. Vol. 88, pp. 733-755, 1938.

if encouragement is given by industry to experiments along this line. On the other hand, unless such encouragement is given and financial co-operation provided, it will not be possible for industry to profit from the accumulated scientific evidence on personality measurement which is ready for practical application.

SAMPLE PERSONAL APPRAISAL TEST

In answering the questions contained in Chapter IV the reader has already had an opportunity to make a self-appraisal of some of the qualities related to executive ability. Here is a list of items relating to specific personality traits that may be used as a further check. In answering these questions, prepare a sheet on which to write responses. The sheet should provide space for recording answers to sixty questions.

Series A

1. Do you find it difficult to speak in public? Yes No
2. Does it make you uncomfortable to do something "different" or unconventional? Yes No
3. Do you ever complain over poor service in restaurants, stores, etc.? Yes No
4. Do you often find that you cannot make up your mind until the time for action has passed Yes No
5. Do you take the responsibility of introducing people at a social gathering? Yes No
6. Can you successfully argue with a tradesman over prices?... Yes No
7. Do you keep in the background at social gatherings? Yes No
8. Do you ever take the lead to enliven a dull party?..... Yes No
9. Do you have difficulty in starting a conversation with strangers? Yes No
10. Have you ever organized clubs, teams, or other groups on your own initiative? Yes No

Series B

11. Do you see more fun or humor in things when you are in a group than when alone? Yes No
12. Do you prefer a theatrical performance to a dance?..... Yes No
13. Do you rewrite personal letters before mailing them?..... Yes No
14. Do athletics interest you more than intellectual affairs?..... Yes No

15. Do you think that you could become so absorbed in creative work that you would not notice a lack of friends? Yes No
16. Do you prefer to be alone in times of emotional stress? Yes No
17. Do you like to assume full responsibility for an activity rather than work with a committee? Yes No
18. Do jeers humiliate you even when you know you are right? .. Yes No
19. Do you want someone to be with you when you receive bad news? Yes No
20. Do you usually work out things for yourself? Yes No

Series C

21. Do you often feel self-conscious because of personal appearances? Yes No
22. Do you mind very much taking back articles you have purchased in stores? Yes No
23. Are you troubled with shyness? Yes No
24. Do you day-dream frequently? Yes No
25. Do you worry over possible misfortunes? Yes No
26. Does your mind often wander badly so that you lose track of what you are doing? Yes No
27. Do you feel self-conscious in the presence of superiors? Yes No
28. Do you lack self-confidence? Yes No
29. Are your feelings easily hurt? Yes No
30. Would you feel self-conscious if you had to volunteer an idea to start a discussion among a group of people? Yes No
31. Does it bother you to have people watch you at work? Yes No
32. Can you stick to a tiresome task for a long time without someone prodding you or encouraging you? Yes No
33. Do you consider yourself a rather nervous person? Yes No
34. Are you easily discouraged? Yes No
35. Can you make decisions quickly? Yes No
36. Are you systematic in caring for personal property? Yes No
37. Can you laugh when the joke is on you? Yes No
38. Can you stick by your opinions even though others disagree with you? Yes No
39. Do you like to be with people a great deal? Yes No
40. In an accident, do you quickly take part in giving aid? Yes No

Series D

41. Do people listen attentively when you talk? Yes No
42. Are you afraid to acknowledge that you may be wrong? Yes No

- | | | |
|--|-----|----|
| 43. Do you believe that people will think you weak if you change your mind? | Yes | No |
| 44. Do your friends frequently seek your advice? | Yes | No |
| 45. When you talk with a person do you listen attentively to what he is saying? | Yes | No |
| 46. Do you become irritated when people do not agree with you? .. | Yes | No |
| 47. Are you frequently bored with people? | Yes | No |
| 48. In an argument do you lay down the law and fight for it? | Yes | No |
| 49. Do you consciously try to talk to people about things which will interest them? | Yes | No |
| 50. Do you see the good points in your opponent's argument? .. | Yes | No |
| 51. Do experiences change your opinions? | Yes | No |
| 52. Do you frequently say things about other people you would not want them to hear? | Yes | No |
| 53. Are you afraid to take a stand on a question because you think someone might prove you to be wrong? | Yes | No |
| 54. In a family conference or business conference do you approach the problem with a desire to get everybody's side of the question before you come to a decision? | Yes | No |
| 55. In a group discussion do you listen sympathetically to all sides of the question? | Yes | No |
| 56. Do you ever mail letters and regret that they were sent? | Yes | No |
| 57. Are you able to talk intelligently on a large number of subjects? | Yes | No |
| 58. Do you limit your acquaintances to a select few? | Yes | No |
| 59. Are you sensitive to remarks that people make about you? | Yes | No |
| 60. Do you enjoy watching people in a crowd? | Yes | No |

A key to these questions will be found in the appendix on pages 523-4.

PERSONALITY TESTS—EMPIRICAL VALIDATION

Since it is not known precisely what personality traits are related to occupational activities, some companies have found empirical validation of test items, without reference to trait names, to be helpful in selection of employees. This procedure might readily be used in the selection of test items for the measurement of executive ability, therefore, the experience of two organizations is herewith reported. While neither experience relates directly to the selection

of executives, the procedures involved are applicable to the solution of problems in executive selection. The results of experiments carried on at the Life Insurance Sales Research Bureau are reported as follows:

Six years ago, when the Research Bureau began its work on the measurement of personality characteristics, no one knew just what personality factors were related to success in selling life insurance and what ones were not. Consequently it was necessary to begin the study of personality characteristics by constructing a number of tests designed to measure various traits which were *believed* to be important factors in determining the success of life insurance agents. A few examples of such characteristics are: self-confidence, self-assertiveness, dominance, emotional adjustment, and understanding of people.

In the course of the experimentation, eight tests were constructed containing about 500 items or questions which were intended to measure 38 different characteristics similar to the examples given above. The tests (or revisions of them) were answered by a total of approximately 1,000 men who were already in the life insurance business and whose degree of success or failure was a matter of record. As a result, four different types of questions were found which discriminated with a high degree of accuracy between the successful and the less successful insurance salesmen in these groups of "established" agents. . . . These questions were printed in the form of a booklet and they were answered by 1,433 new agents contracted in the agencies of 24 companies. From this group a small homogeneous group of 304 agents was selected for further study Three of the four types of personality questions that were found to have a high discriminative value in groups of established agents have also shown their value in differentiating between the successful and the less successful life insurance salesmen in this group of new agents.⁵⁸

Similar procedures are reported for an experiment conducted at the Household Finance Corporation:

Our early investigations were carried on with published tests which have been standardized by others. These attempt to measure unitary traits, such as introversion-extroversion, ascendance-submission, etc. We were unable to find any test in which the total score was significantly prognostic of success in our organization to warrant its inclusion as part of a

⁵⁸Taken from a report of the Life Insurance Sales Research Bureau published in 1938 and cited in *Experience with Employment Tests, op. cit.*, p. 37.

selection program. In the cases of many of the purchasable personality tests, results were obtained which ran counter to expectations

Results suggested, however, that further experimentation and research of a specialized nature would shed considerable light on the problem of measuring normal personality contribution to job success. In 1935 we assembled a battery of 450 items which were similar to those contained in the well-known standardized personality and interest tests, such as the Strong Interest, the Allport A-S, and the Bernreuter Inventory. This whole battery of items was given to a large number of our employees as well as to thousands of applicants. To discover the value in relationship of job success for each item of this series, a criterion group of 200 employees who were rated by their superiors as highly satisfactory was selected and their scores were contrasted with those of a group of 500 applicants. Out of the 450 items there were only 139 in which there were statistically reliable differences between the two groups

This test has been successfully used as part of our selection technique for employees for more than five years—a sufficiently long time to test its worth. Experimental cases that were employed in spite of being below critical score, who later had to be released, indicate that a higher percentage of our selections is satisfactory when the test is used than when it is not included in our selection battery

We have been convinced that the total score on a standardized test for unitary traits is highly unsatisfactory as compared with the weighting of individual items to a particular employee's classification.

Our experience holds good for only one organization. This approach to measuring the normal or most favorable personality for a particular job situation has produced results for us. It may be of no value to other companies. It is not for sale; it is the result of a sizable expenditure in standardizing and evaluating it to its present level. It will be standardized as factors beyond our control change the caliber of our applicants, or as the nature of our work itself changes.⁵⁴

EXECUTIVE ATTITUDES TOWARD PSYCHOLOGICAL TESTS

In addition to theoretical and practical considerations which must receive attention in the use of psychological tests in business and industry, particularly as they apply to the measurement of

⁵⁴Wonderlich, E. F. and Hovland, Carl Ivor. "The Use of Personality and Interest Tests for Selection Purposes." Reported in *Experience with Employment Tests, op. cit.*, pp. 60-61.

executive traits, there arises the question of executive attitudes toward psychological tests. That the attitudes of many executives are not well considered is indicated by the kind of questions frequently asked by executives and by personnel men in their companies. A list of typical questions would include these, among others: "Shall we use tests?" "Do psychological tests have any value?" "What about the 'X' test; is it any good?" "Is the 'Y' personality test better than the 'Z' personality test?"

Executives should be interested in any procedure which will provide more efficient and better adjusted workers, and which will reduce labor turn-over. Uncritical application of tests will not accomplish these ends; however, a carefully conducted research program will aid in attaining those objectives. The experience of the Scoville Manufacturing Company, R. H. Macy Company, Detroit-Edison Company, Pennsylvania Railroad Company, and others is vital testimony to this fact.⁵⁵

Unless an experimental viewpoint can be maintained the best advice which can be given to any company considering the possibility of using tests is "don't." However, it is difficult to understand the reluctance on the part of executives to approve expenditures for research in testing. Millions of dollars are expended on research relating to materials, methods, and marketing. The importance of personnel is such that like expenditures for research are justified.

Personnel research is a specialized field, and research in testing is a highly technical branch of personnel research. Office boys, employment interviewers, even department superintendents usually do not possess the necessary technical skill to direct such activities although they have sometimes been entrusted with them. The personnel manager himself may be poorly equipped to do more than supervise such work. The usual courses in psychology, personnel management, or the reading of books on selection meth-

⁵⁵For a report of testing programs in these companies, see *Experience with Employment Tests*, op. cit., pp. 45-69.

ods do not usually provide the necessary knowledge and skill. At the present stage of development the field is one for specialists, which means that even an expert in the theoretical phases of psychology may not be a good test technician.

The answer to the question as to which test shall be used is not an easy one. The procedures used by the Life Insurance Sales Research Bureau and the Household Finance Corporation, reported elsewhere, indicate the extreme care which must be exercised. The method used by the United States Employment Service has set a pattern which may well be followed.⁵⁶ Comments contained in the Conference Board report, frequently referred to in these pages, provide the only tenable answer to the question of test validation. "Job description and the equating of jobs and human demands and abilities must precede tentative test selection . . . Which tests will be selected depends on the knowledge of tests that the experimenter has. No person can tell beforehand which tests will be of value. One who has had considerable experience with tests in business and industry can probably make a better guess than one who is unfamiliar with the work situation, but only time, records, correlation coefficients, probable errors, and infinite patience can discover the test that will prove to be of value."⁵⁷

⁵⁶Reported in Stead, W. H. and others. *Occupational Counselling Techniques, Their Development and Application*. American Book Company, 1940.

⁵⁷*Experience with Employment Tests, op. cit.*, p. 44.

Tests of Executive Ability

"CAN EXECUTIVE ABILITY BE MEASURED BY TESTS?" THAT IS THE question which we shall attempt to answer in this chapter. In earlier sections of this book it has been shown that intelligence tests alone do not provide an adequate measure of executive ability, but that such tests are helpful when used with other measures of ability. It has been shown that interest tests do not reveal a distinctly executive pattern, but do aid in measuring breadth of interest, a characteristic which is more typical of executives than highly specialized occupational groups. It has been shown that certain traits of personality are closely related to executive success and that these traits can be identified and estimated by using carefully prepared rating forms. It has been shown that the measurement of personality traits related to executive ability is highly restricted if existing personality tests are used, but that the development of personality tests for executive trait measurement is a field of research offering great promise. It has been shown that no test or series of selected tests can be applied exclusively to the measurement of executive ability, but that executives do identify themselves on certain tests in a way that makes possible the formulation of a workable theory of executive ability.

THEORETICAL FOUNDATION OF EXECUTIVE ABILITY MEASUREMENT

A theory of executive ability based on experimentally derived evidence has already been stated.¹ However, for the purpose of developing a plan for the measurement of executive traits it is

¹See pp. 8, 23-26.

necessary to examine some of the implications of the theory. Executive ability is a general, all-round ability made up of several complementary traits which exceed in degree the average strength of those traits as they are displayed by persons of superior capacity. The complementary traits functioning in executive ability are well integrated. However, executive ability does not fall into a common pattern which makes possible the identification of an executive "type." On the contrary, the individual element in executive trait patterns is a distinguishing factor. In measuring executive traits, therefore, emphasis must be placed on *the executive* rather than on *executives as a group*. That being the case it follows that individual executive test profiles are often more significant when used as standards for determining suitability for a given executive position than are job psychographs based on group-established norms.

DO TESTS MEASURE EXECUTIVE ABILITY?

The simplest answer to this question is—"No set of tests which have been compiled to date measure the whole of executive ability, but some tests have been devised which partially measure executive ability." Unfortunately, attempts to apply to the measurement of executive ability those tests which have been found to be significant can only result in disappointment if the procedures used are those ordinarily applied in the use of tests in mass selection. Effective application of tests to the measurement of executive ability requires that individual position profiles be used to supplement group norms in establishing selection standards. Group norms are useful in determining the range of executive ability; but, in seeking a candidate to replace a particular executive who has proved that he can discharge his responsibilities successfully, it is usually desirable to select someone who closely resembles in ability the person who is to be replaced. This selection principle has usually been overlooked by persons who have conducted research to determine the nature of executive ability and those who have speculated on the possibility of applying tests in executive selection. This

point is of such great importance that it should be clearly understood before an attempt is made to answer the question, "What tests should be used in identifying executive ability?"

HOW GROUP NORMS ARE USED IN SELECTION

Industrial organizations usually employ large numbers of persons to fill positions held by clerks, typists, stenographers, machinists, and semi-skilled factory workers. It is a comparatively simple matter to administer tests to such workers and establish group standards or norms because there is a high degree of similarity in the work done by groups of workers in several organizations. For example, it would not be difficult to establish norms for a written or oral machinist's trade test consisting of twenty-five carefully calibrated questions. Such norms could be established by administering the test to five hundred persons made up of five groups: one hundred fully trained machinists, one hundred student machinists who have completed three-fourths of their training, one hundred apprentices of six months' standing, one hundred apprentices just starting training, and one hundred persons of no particular mechanical ability. Such an experiment would provide results similar to those shown in Table 4. Some of the data shown in this table are hypothetical and are used for illustrative purposes only.

TABLE 4
SCORE DISTRIBUTIONS ON A MACHINISTS' TRADE KNOWLEDGE TEST

Group	Range of Scores (Upper 2/3)	Average
Fully qualified machinists	20 & above	22
Machinists, three-fourths trained	16-21	19
Apprentices with six months' training	10-14	12
Beginning apprentices	5-12	9
Inexperienced persons	0-9	4

By using group standards such as those shown in Table 4 it would be possible to classify a prospective employee on the

basis of trade knowledge regardless of previous experience and training. The same method might be applied in the selection of candidates for executive positions, but since executive positions differ to a greater extent than do specialized jobs, the results might be disappointing. If several tests were applied to a miscellaneous group of executives, a distribution of scores such as that shown in Table 5 would be typical.

TABLE 5
SCORE DISTRIBUTIONS OF A GROUP OF EXECUTIVES ON SELECTED TESTS

TEST	RANGE OF SCORES			Average
	Lower 25%	Middle 50%	Upper 25%	
Army Alpha Test.	104 & below	105-134	135 & above	126
Range of Interest.	47 & below	48-70	71 & above	59
Vocabulary	38 & below	39-67	68 & above	54
Social Knowledge	64 & below	65-93	94 & above	78

By using Table 5 it would be possible to classify an executive candidate by comparison with the scores earned by a miscellaneous group of executives. However, it would not be possible to determine by such a table whether the intelligence, range of interest, vocabulary, or social knowledge required on a particular executive job was being matched, nor would it be possible to determine the characteristics most necessary to executive success on the particular job in question. Every executive position should be considered as a separate and distinct one, and the person now filling the job successfully should be taken as the best available standard to be followed in selecting an understudy or replacement. That being the case judgment must frequently replace the correlation method commonly applied in validating tests for use in general selection for jobs in which large numbers of persons are employed.

WHAT TESTS MEASURE EXECUTIVE ABILITY?

In appraising candidates in executive selection a wider range of traits should be measured than when selecting men for simpler responsibilities. In general it has been found that most organizations are too prudent in expending time and money to insure

discovery of the best available man for an executive position. The relation of executive ability to successful operation of a company is such that expenditure of several thousands of dollars for locating the most promising candidates is often justified. There is, however, nothing to be gained in administering tests which have no particular relation to executive ability, nor is there anything to be gained by administering several tests which measure the same thing. Keeping in mind these limitations the authors have assembled an examination which contains a variety of test forms. This examination, bearing the title "Vocational Aptitude Examination, Type E-A," represents a minimum selection of tests.²

Several of the tests in the Vocational Aptitude Examination were chosen as a result of Mason's studies of the effectiveness of various types of tests in differentiating sales, technical, and executive groups.³ Other tests were added to the group originally used in order to cover other abilities believed to be related to executive functions.⁴ The examination has been widely used since 1935; and, while it by no means represents the complete or final answer to the question of suitable tests for executive ability, it provides a basis for experimental study of some of the abilities which are apparently required in executive positions. Reports from users indicate that the examination is reasonably adequate on the mental capacity side of executive ability, but that supplementary information on personality traits must usually be sought. Properly used and supplemented by other information, the examination has been found to be helpful in identifying potential executive material.

The Vocational Aptitude Examination is a sixteen-page booklet containing the following tests:

I. General Information Test

²The test booklets containing this examination are distributed by the Psychological Corporation, 522 Fifth Avenue, New York City.

³Mason, C. W. "The Possibilities of an Objective Executive Aptitude Test." Thesis on file in University of Buffalo Library, 1930.

⁴Cleeton, Glen U., and Mason, C. W. "Measuring Executive Ability," *The Personnel Journal*, Vol. 13, No. 5, 1935.

2. Arithmetical Reasoning Test
3. Judgment in Estimating Test
4. Symbolic Relationships Test
5. Reading Comprehension Test
6. Vocabulary Test
- 7A. Range of Interest Test
- 7B. Sales Interest Test
- 7C. Accounting Interest Test
- 7D. Engineering Interest Test
- 7E. Business Management Interest Test
- 8A. Dominance-Submission Test
- 8B. Independence-Dependence Test
- 8C. Extroversion-Introversion Test
- 8D. Social Responsiveness Test
- 8E. Social Knowledge Test

Tests 1 to 6 contain questions relating to general and special abilities. The questions in these six tests range from extremely easy to very difficult and are administered under time limits. Scores from tests 1, 2, 5, and 6 can be combined to provide a measure of mental ability similar to that obtained by administering standard intelligence tests. Test 7 is a single test, administered without time limit, which can be scored for five different purposes. Test 8 is also administered without time limit, contains personality trait questions, and is subdivided into five parts. The levels of ability measured by the tests included in the examination are such that it can be used most satisfactorily with college seniors or college graduates. However, the examination can be applied to any candidate whose educational attainment is equivalent to high school graduation. The time required for administering the examination is approximately an hour and a half.

GENERAL INFORMATION TEST

Information questions are included in most standard intelligence tests. The General Information Test resembles one of the sections of the original Army Alpha Test. However, as used in

the Vocational Aptitude Examination, the General Information Test serves a different purpose in that it measures not only mental capacity, but gives an indication of range of interest and breadth of knowledge. Information tests were first used to measure range of interest and breadth of knowledge in experiments conducted at the Bureau of Personnel Research at Carnegie Institute of Technology. The E-A General Information Test is an extension of the test developed in those experiments.

The fifty questions which make up the General Information Test cover a variety of subjects: science, social practices, law, history, famous people, economics, business practices, psychology, sociology, sports, slang terms, politics, geography, political science, literature, mathematics, and several kinds of information which are general common knowledge. The variety of items included makes it impossible for persons whose knowledge is highly specialized to earn a high score on the test. Breadth of comprehension is emphasized—the items were chosen in such a manner as to cover information usually acquired by general reading rather than systematic study, although the latter obviously would equip one with such knowledge if the list of subjects studied was a broad one. Executive and sales groups usually do better on this test than do accountants and engineers or other technical experts.

ARITHMETICAL REASONING TEST

Ability to analyze and apply the process of reasoning in systematic solution of problems appears to be measured by arithmetic problems when they are presented in written statement form. A series of comparatively easy written-form arithmetic problems was included in the original Army Alpha Test. Such problems have been used in a number of other tests of mental ability. Usually the problems involved are comparatively easy to solve; therefore, speed of calculation is more often measured than power of reasoning. In the Vocational Aptitude Examination the thirty questions included vary from those involving easy calculations to a few which place greater emphasis on power of analysis than on

calculation. This may be illustrated by sample questions taken from this section of the examination.

"1. If Mary had twenty-five cents more than she spent today she would have seventy cents. How much did she spend?"

"15. Divide \$840 among A, B, C, and D, so that A will have half as much as B; C will have \$12 less than B; and C and D together will have as much as the sum of A's share and B's share."

"30. In a certain city 75% of the voters opposed the city manager form of government and 60% opposed a bond issue. If you think any of the voters were opposed to both, indicate the maximum and minimum percent of voters who might be opposed to both. In the above problem were there any who were in favor of both? Indicate your answer by stating the maximum and minimum percent possible in the included range, or indicate that you cannot say without further details."

Engineers and technical research specialists earn high scores on this test, apparently because of extensive training in mathematics. Accountants usually earn high scores if they have had extensive training in cost analysis, but usually do not do so if the level of occupation held is that of the ordinary bookkeeper or clerical worker who does incidental accounting work. Executives do better than average on the test, while salesmen make a poor showing.

JUDGMENT IN ESTIMATING

In selecting tests for experimental study, effort was made to secure a few tests not closely correlated with the characteristics measured by standard intelligence tests or knowledge and information tests. The Judgment in Estimating Test was found to have less relationship to these abilities than any of the other tests used. Questions in the estimating test require answers which, in some cases, can be derived from reasoning from commonly known facts, and in other instances represent little more than a guess. The test is scored in such a way that answers obtained either by reasoning or shrewd guessing are given weight of 1 to 10 points

depending on the accuracy of the estimate. Such questions as: "Estimate the average number of navy beans to the bushel," "Estimate the number of steam locomotives in service in the United States," and "Estimate the number of dollars on deposit in savings accounts in Chicago banks in 1925," are included among the thirty which make up the test. Estimating or guessing tests have been used in psychological laboratories for many years. The present test was patterned after a series of questions used at one time or another in an examination for college freshmen by the American Council on Education.⁵ The test in its present form includes questions covering a wide range of information and were selected to avoid information which is common knowledge.

Sales groups exceed the general average on this test; in fact, it is the one test that we have found which clearly differentiates sales from other groups. On the other hand, engineers and technical research groups do poorly on this test. It is probably of no significance to try to determine the reason for these differences; however, it is believed that the sales groups follow a tendency to gamble on good guesses, whereas engineers waste time on the test in trying to make calculations which can be defended mathematically. Executives exceed the general average slightly, but do not go to the extremes which are characteristic of the sales and technical groups. Accountants tend to resemble executives on this test.

SYMBOLIC RELATIONSHIPS TEST

Numerous tests involving the mental manipulation of symbols and forms have been included in various psychological examinations. The Army Beta Test, an intelligence test for illiterates, contained several types of easy form relationship questions. The Symbolic Relationships Test included in the Vocational Aptitude Examination was suggested by Army Beta and a test used in an American Council psychological examination, but involves items of greater difficulty than any similar test.

⁵*Psychological Examination for High School Graduates and College Freshmen.* American Council on Education, Washington, D.C.,

The test measures the use of visual imagery in reasoning about form relationships. The items are presented in analogy form. Two forms or symbols are shown which are related to each other, and the subject is required to pick two other forms from among a group of six that are related to each other in the same way as the two sample items are related to each other. For example, a hollow square and an open circle are presented as two related items in one of the questions, and the person taking the test is required to pick out two similarly related items from a hollow triangle, an open circle, a square divided into four squares, a solid black square form, a solid black circle form, and a solid black triangle form. The questions are made progressively more difficult by presenting unusual forms and forms lacking or possessing special appendages. Twenty items are included.

Although the test is intended to measure the use of abstract form imagery in reasoning, it has been found that persons unaccustomed to working with charts, graphs, or drawings introduce a degree of verbalization and reasoning somewhat as follows: "The large hollow square is related to the large hollow circle as the small black square is related to the small black circle." Consequently sales groups make a very poor showing on this test; in fact, their poor showing is a distinguishing characteristic. On the other hand, engineers and technical research groups do unusually well. Executive groups do better on this test than on the estimating test. Accountants vary more widely than others on this test, but resemble executives in their average scores.

Experiments have been conducted with verbal relationship tests of the antonym and synonym type but no conclusive evidence was obtained. Vocabulary matching tests appear to measure approximately the same thing as the antonym-synonym test and contribute additional information not obtainable through the use of other verbal relationship tests. The Vocabulary Test is discussed later.

READING COMPREHENSION TEST

Numerous reading comprehension tests have been developed. The form included in the Vocational Aptitude Examination requires the reading of five selected paragraphs which increase progressively in difficulty of style. The subject is required to read the paragraph and to answer five questions concerning each one. This test was originally developed for use with college students.⁶ It measures speed of reading and accuracy of comprehension of material read. Executive and sales group tend to make higher scores, on the average, on this test than do engineers and accountants. The reason for this distinction is believed to relate to reading habits. Engineers, particularly, become habituated to slow speeds of reading because much of the material that they are required to read must be analyzed carefully for meaning.

VOCABULARY TEST

This test was included in the Vocational Aptitude Examination to provide a measure of ability to deal with verbal relationships. Tests of vocabulary have had a long history. They are used in some form in practically every mental ability examination; in fact, one of the criticisms of mental ability tests is that they often place too much emphasis on verbalization. The Vocational Aptitude Examination is better balanced than most mental ability examinations; the Vocabulary Test and the reading section are the only ones which emphasize word relationships and in both instances supplementary objectives are served.

All persons who have experimented with executive ability tests have found verbal relationship tests to be significant. One investigator reports that a vocabulary test has proved highly effective in differentiating executives from other occupational groups.⁷ The Vocabulary Test included in the Vocational Aptitude Examination is arranged in matching form. Three sets of

⁶Cleaton, Glen U. and Shaffer, L. F. *Carnegie High School Achievement Examination*, Carnegie Institute of Technology, 1933.

⁷O'Connor, Johnson. *Unsolved Business Problems*. Human Engineering Laboratory, Stevens Institute of Technology, 1940. pp. 114-116.

ten words each are printed in columns opposite definitions of the words which are arranged in random order. The person taking the test is required to match definitions and words. The list of thirty words was selected from those used in the Stanford Revision of the Binet Test and is scaled from easy to difficult.⁸ In its present form the Vocabulary Test first appeared in tests of general mental ability used at Carnegie Institute of Technology with college students.⁹

Executives make a better showing on this test than do sales and engineering groups. Sales and engineering groups exceed accountants.

A MEASURE OF INTELLIGENCE

It has been pointed out elsewhere that so-called intelligence tests probably do not measure intelligence but something closely related to it which may be described as abstract learning ability. It is believed that intelligence tests measure scholastic aptitude in contrast to social or mechanical aptitudes. It should not be concluded from this statement that demonstration of high abstract learning ability necessarily precludes social or mechanical aptitude. It is true, however, that many persons who do well on intelligence tests lack social and mechanical aptitude. Intelligence as measured by tests is only a part of the story of executive ability. Bingham and Davis conclude that "superiority in intelligence above a certain minimum contributes relatively less to business success than superiority in several known intellectual traits of personality."¹⁰ The fact remains, however, that the minimum intelligence required in executive functioning exceeds the maximum required in the majority of occupations.

A study of several intelligence tests indicates that the chief factors measured by the questions included in them are number

⁸Terman, L. M. *Measurement of Intelligence*. Houghton-Mifflin, 1916, pp. 224-231. Also see Stanford-Binet Test Record Booklet.

⁹Cleaton, Glen U. *Tests of General Mental Ability*. Carnegie Institute of Technology, 1926. Revised edition published as the *Carnegie Mental Ability Test*. Houghton-Mifflin, 1931.

¹⁰Bingham, W. V., and Davis, W. T. "Intelligence Test Scores and Business Success," *Journal of Applied Psychology*, Vol. 8, 1924, pp. 1-22.

manipulation, word manipulation, general information, and limited problem solution.¹¹ By combining scores on tests 1, 2, 5, and 6 of the Vocational Aptitude Examination an "intelligence" test score can be obtained. In addition to whatever contribution the separate tests in the examinations may make, taken singly or collectively, the combination suggested above makes it possible to secure a measure comparable to that obtained from the use of a separate intelligence test. Therefore, no additional test of intelligence need be given if the Vocational Aptitude Examination is used. However, to users who wish to apply a separate intelligence test we recommend that either Business Alpha, Bureau Test VI, Otis Self-Administering, or the Personnel Test be selected.¹²

INTEREST TESTS

All of the tests of the Vocational Aptitude Examination so far discussed are measures of ability to apply mental skills. Three are general in nature, 2, 5, and 6; test 1 resembles a general ability test but has a special ability slant; and two of the tests measure special abilities, tests 3 and 4. To extend the range of characteristics measured by the examination an interest form and a series of personality test questions were included.

The interest form is made up of ninety-eight items similar to those presented on page 140. Most of the items used appeared originally in the Bureau of Personnel Research Interest Analysis Form published at Carnegie Institute of Technology in 1920. The interest section can be scored for range of interest, sales interest, engineering interest, accounting interest, and business administration interest. Executives score highest on range of interest and business administration interest. Other groups score highest on the respective sections designated for each occupational group.

Except for firms who may wish to do intensive experimental work with interest tests, the interest form included in the Voca-

¹¹Cleaton, Glen U. "Predictive Value of Certain Measures of Ability," *Journal of Educational Research*, May, 1927, p. 367.

¹²Any of these tests may be secured through the Psychological Corporation, 522 Fifth Avenue, New York City.

tional Aptitude Examination should meet most needs. For those firms wishing to experiment with longer lists of interest items the Strong Vocational Interest Blank and the Cleeton Vocational Interest Inventory are recommended.¹³

PERSONALITY TESTS

Test 8 in the Vocational Aptitude Examination, designated as a Typical Reactions Test, contains five sections: ten items relate to dominance-submission; ten, independence-dependence; twenty, extroversion-introversion; twenty, social responsiveness; and twenty relate to knowledge of human reactions. The origin and nature of tests of this type is discussed fully in Chapter V. While the number of items in some of the sections of the Typical Reactions Test is small, this is compensated for to some extent by the fact that only items of high significance are included. For general use the list should be sufficient. If a more extensive investigation of these traits is contemplated, it is suggested that the Beckman Revision of the Allport A-S Reaction Test and the Bernreuter Personality Inventory be used. For experimental investigation the Humm-Wadsworth Scale and the Adams-Lepley Personal Audit can be recommended.¹⁴ In experimental investigations the precautions pointed out in Chapters V and VII should be observed.

The sales group exceeds all others on dominance, extroversion, and social responsiveness. Engineers tend toward introversion and independence, frequently make low scores on social responsiveness, and rate average on dominance-submission. Accountants resemble engineers in these tests while executives rate distinctly above average on all sections of the Typical Reactions Test.

PERSONAL INFORMATION

The last page of the Vocational Aptitude Examination contains space for recording information about education, age, favorite fields of study, previous experience, favorite sports, recreations,

¹³The Strong Blank is published by Stanford University Press; the Cleeton Inventory is published by McKnight and McKnight.

¹⁴Obtainable from the Psychological Corporation.

hobbies, health rating, and work activity preferences. The relation of these personal history items to executive success is not known. This section is included in the examination booklet for use by those firms which may wish to make studies of personal history factors in the manner suggested by Ream and the Life Insurance Sales Research Bureau.¹⁵

APPLYING THE EXAMINATION TO EXECUTIVE SELECTION

The Vocational Aptitude Examination can be used in preparing standard individual profiles and range psychographs, and may also be used for the purpose of establishing company norms. Tables of norms based on the general distribution of abilities have been established by the authors; therefore, the test can be made immediately applicable for selection if users are willing to rely on general norms. The authors have no quarrel with those who wish to use general norms, despite our insistence on the desirability of establishing individual executive and company group standards. In fact, sound judgment recommends the use of available general norms when immediate application of the tests is necessary. Use of general norms in the initial applications of the examination in a company will tide over a period during which company standards can be developed.

SELECTING POTENTIAL EXECUTIVES

Every company that plans wisely for the future builds up man-power reserves. In every department there should be men whose potentialities for future service involving greater responsibilities are known to the company. These potentialities may not be, nor need they be, known to the persons themselves, but information about their capacities should be obtained and recorded in company files as an inventory of ability reserves. It is not enough to know that there are fifty, one hundred, or a thousand bright young men in the company hoping to move upward in the organization. As far as possible the respective amounts of ability each is bringing along with him should be known.

¹⁵See page 146.

Test profiles and rated-trait profiles are especially useful where there are a large number of younger men in various stages of development. It is true that many will provide valuable information about themselves through their performance on present and future jobs before they reach the stage where they can be considered for promotion to executive positions. But performance on previous jobs is not always proof of possession of executive ability. Many men who have shown outstanding ability to perform well in routine jobs have failed miserably when they were moved upward to positions requiring the application of new capacities. Promotion of men who have reached their optimum ability level is not only disastrous to the company but is likewise demoralizing to the individual. Every company president, plant superintendent, and division or department head can name dozens of instances within his own observation that proves this contention. Better appraisal of potential abilities will not eliminate all of these cases, but their number can be reduced thereby. Failure to take the steps necessary to profit from available measuring devices in making inventory of talent within a company is indefensible even though the measuring devices admittedly are still imperfect.

Assaying and recording ability with a view to executive promotion need not be limited to men already in the company's employ. Such steps can be taken when the young men of future hope are being selected. In fact that would seem to be the best time to make an initial appraisal. In the recruiting of promising young men, which is frequently done at the time of college graduation, it is often true—too often true—that selection is made on the basis of casual interviews, past history, college records, and opinions of the student's major professors. While these sources are not without value, they do not provide enough information for the company recruiting officer to identify valuable potentialities. The reason is simple—many capacities are not measured by the criteria commonly used. It is not the prospect of success for six months, a year, or even five years that is at stake—it is the long-time ultimate pos-

sibilities that are more significant. Tests and rating forms are often helpful in determining the long-range possibilities of a candidate. They at least provide supplementary information which goes beyond that ordinarily obtained by those whose business it is to interview prospective employees among college graduates.

When tests are used at the point of original selection of men for whom a future of growth and development within a company is projected, they also provide information which will aid in placement. Shall the recruit be placed in accounting, research, production, sales, estimating, method's study, or some other department? That question must be answered in some manner. The multiplicity of departments within a company need not cloud the issue, because a majority of new recruits selected for service in large organizations are headed for work directly related either to sales, accounting, engineering, or administration and some will eventually be given executive assignments. The Vocational Aptitude Examination can be used as an aid in classifying men for these four general divisions and can also be used in spotting potential executive material. The manual accompanying the examination contains specific suggestions for using the examination for these purposes.

Sometimes the field of major study in college may indicate the division for which the recently recruited college graduate is best fitted. However, the only types of courses in college which strongly facilitate or restrict placement are those such as accounting and engineering, and even these produce their normal quota of misfits. Use of a battery of tests such as those contained in the Vocational Aptitude Examination provides information which is valuable in confirming other indications of the most suitable field, prevents acceptance of prospects who have reached their approximate level of ultimate growth, and provides a basis for classifying those whose preparation has been extremely general in nature. It also aids in identifying abilities which lie beyond the limits of the

jobs of the first few years even to the point of spotting those who are likely to go the farthest in the organization.

FUTURE DEVELOPMENT OF TESTS FOR EXECUTIVE SELECTION

New tests are in the process of development; hence it is conceivable that additional ones will be found which have significance in measuring executive traits. Some of the unstandardized tests included in other chapters of this book may later be standardized and new applications developed. Some highly generalized tests, such as many of the personality tests described in Chapter V, may be modified and improved and be found to have value in measuring hitherto unidentified relationships of traits to executive functioning.

The extent of the progress which will be made rests largely with present executives of business organizations. If research is encouraged by them much may be accomplished. If test specialists must depend on meager royalties obtained from sales of test booklets to finance research activities, then slow progress may be expected. However, progress will be made, for test specialists are interested in the problem regardless of financial considerations. Fortunately the trend is toward greater co-operation on the part of business executives; hence the outlook may be said to be good. Other than the suggestions already made, the authors do not wish to commit themselves too boldly on the question of the form of the next developments in tests for executive ability. They are all too familiar with disappointing results which frequently are the outcome of experiments with tests. However, these limited predictions seem safe:

1. Personal appraisal questions, such as those presented in Chapter III, offer encouragement; the chief problem relating to their use is that of controlling accuracy of statement.
2. Ability to make decisions, the most distinctive of executive traits, can probably be measured if the right medium can be found and if opportunity for experimentation is provided. Leading executives must be willing to serve as subjects for experiments in this direction if progress is to be made.
3. Development of effective tests of originality, resourcefulness, and

constructive imagination is just around the corner, but their application to executive functions must be explored before any conclusions relating to their practical significance can be drawn.

4. It should be possible to develop tests of executive knowledge, particularly in relation to specific company situations. There is much additional promising material to be investigated but mention here might be misleading.

The possibility of using personal appraisal questions with executives of demonstrated ability has been explored by Professor Harry W. Hepner. His results are highly suggestive. Using a series of twenty-eight personal history items he found a significant relation to earnings. By weighting the items positively and negatively for importance or lack of it as revealed by correlation of answers to earnings, he was able to make the following statement: "Of the businessmen who made scores of -40 to -120, one hundred percent made less than \$2,500 per year; of those who made a score of +81 and above, fourteen percent made a salary of from \$5,000 to \$10,000 per year; twenty-nine percent from \$10,000 to \$20,000 per year; and fifty-seven percent \$20,000 or more per year."¹⁸

Items found by Hepner to be significant, while they may or may not prove to be predictive of success of men aspiring to executive positions, are interesting because they reveal some of the elements in executive success. From a study of his results it is possible to state that the following characteristics were displayed by the more successful executives.

1. Attends meetings of five or more technical or trade associations per year—ten was more significant than five.
2. Takes a very active part in meetings attended.
3. Devotes considerable attention to personal appearance.
4. Since leaving high school has spent all available time for study on subjects relating to his business.
5. Has read items in newspapers relating to business much of the time or almost exclusively.
6. Was a leader in activities in youth.
7. Has usually associated with men whose ability is equal to or greater than his.

¹⁸Hepner, Harry W. *Psychology in Modern Business*. Prentice Hall, 1931. p. 699.

8. Of free time not devoted to taking recreation or attending to routine matters, spends fifty to seventy-five percent in devising new methods, plans, or systems for company improvement.

9. Problems dealt with in thinking of improvements relate to organization of company as a whole, stimulating employees, cutting costs, new mechanical inventions, better financing, and helping society in general.

10. Some feel that family influence has greatly stimulated, while others believe that it has had a slightly negative effect.

11. Has been stimulated strongly by rivals and has desired to beat them.

12. Financial obligations are met promptly.

13. Has persisted in times of discouragement.

14. Has a plentiful supply of energy and most report that it compels them to keep busy at all times.

15. Has taken many serious business risks.

16. Devotes slight amount of time in trying to make favorable impressions on important persons, does not plan to do so in advance, but sometimes tries if occasion arises.

17. Problems or difficulties have stimulated greatly.

18. Criticism from others causes resentment but stimulates to greater effort.

19. Usually passes problems on to experts before they arise, but gives them much thought.

20. Is at ease and talks freely in conversation with superiors.

21. Tries to make inferiors feel at ease and lets them talk freely in conversation with them.

22. Speaks when he has something to say in group discussions and frequently dominates discussions.

23. Amount of time devoted to work is felt to be about the right amount and has not been too much to enjoy life fully.

24. Most feel they could influence large numbers of persons, and about half as many feel that they could influence a few.

25. Reads five or more technical or trade journals.

26. Interest in past work has been very great and enjoyable.

27. Could get fifty or more friends to help in putting an idea across if necessary.

28. Often inconveniences self or goes out of the way to help others.¹⁷

¹⁷Hepner, H. W. op. cit., pp. 49-54.

WHO SHOULD GIVE THE TESTS?

Testing in an industrial organization should be done wherever the service can be most economically and efficiently performed. A trained personnel man, a staff psychologist, or a consulting psychologist may be the proper person in some plants, while the president of the company may be the most suitable in another. If subordinates administer tests their effectiveness can be increased greatly by official recognition from the company president or his representative. Where college graduates are recruited by company representatives who visit college campuses, it is sometimes possible for them to administer tests to interested candidates. One or two large manufacturing concerns are currently following this practice. Actual scoring of tests can be done by clerical workers under supervision, but the whole program should reflect official approval. The closer the supervision given by the head of the company and the greater the encouragement from the same source the better the results will be.

DON'T BE MISLED BY TEST NAMES

Industrialists considering the possibility of using tests are often misled by test names. Some tests are named to indicate the characteristic that they are supposed to measure, some to suggest the purpose they are to serve, some to show the type of questions included, some to disguise their true nature, and some, it would seem, to encourage their use. Compilers of tests may be forgiven their inconsistencies in naming the devices which they create for it is usually difficult to describe a test properly by using a few words even though they are carefully chosen. The best advice that can be given to those who wish to become better acquainted with tests is to learn to think of tests in terms of the kind of items included and demonstrated values that are shown to result from application of the particular tests under consideration.

Sometimes the purpose of a test is disguised by giving it a meaningless, extremely general, or even a fictitious name. "Bureau

Test VI," "Alpha Test," and "Personnel Test" are good examples of the use of unrevealing names. For business application the naming of tests in an unrevealing manner is often desirable; in relation to executive measurement it is highly advantageous. It is usually desirable to prevent persons being subjected to tests for the purpose of measuring executive ability from knowing that such is the purpose. The destruction of hope once aroused is destructive of morale. Tests applied for the purpose of measuring executive ability provide information which usually can be used for other purposes. Informing those who take the test of the other purpose, and advising them accordingly on the results, avoids obvious difficulties. Sometimes, as in the case of the Vocational Aptitude Examination, the talents measured are sufficiently broad to warrant a general name which relates to the purpose of the test and yet avoids implications which might be mistaken for commitments. It is recommended that firms developing or using tests for determining the existence of executive ability name their devices and discuss the purpose of such devices in equally non-committal terms.

Prediction of Executive Success

IT SHOULD BE CLEAR FROM PRECEDING CHAPTERS THAT RECORDS OF performance, results of tests, and opinions, made more objective through the use of rating and self-appraisal forms, are useful in selection and placement even on the executive level. Test ratings and objectified self-appraisals are not substitutes for other sources of information which are ordinarily used; they supplement such information and when properly used increase accuracy of prediction of successful performance.

HOW ACCURATE ARE TRADITIONAL METHODS OF SELECTION AND PLACEMENT?

The hiring of employees by traditional methods, whether done by personnel and employment specialists or others, does not always result in the selection of new additions who represent the best persons for the positions in question. This is true of recruits who are expected to become executives as well as of other employees. The effectiveness of any selection procedure is reflected in turn-over figures and by the quality of employees who remain with a company. Some companies over-estimate the effectiveness of their selection program. They often neglect consideration of turn-over figures and often assume that practically all of the persons who are hired and retained are satisfactory. A study of turn-over figures for leading industries raises justifiable doubt as to the effectiveness of traditional employment procedures, and a moment's reflection will reveal the falsity of the assumption that practically all persons retained are satisfactory.

No company that has studied carefully the matter can truthfully say that of one hundred present employees all are the best

that might be obtained. Actual surveys reveal that even in companies with favorable employment experience not more than sixty to seventy percent of employees can be rated as satisfactory in those characteristics most closely related to their work. In some companies the percentage may drop as low as twenty to thirty percent, and the average probably lies somewhere between forty and sixty percent. The difficulty of determining what constitutes a satisfactory employee, and differences in standards in various companies must, of course, be taken into consideration in discussing such questions. Companies who rate a high percentage of employees as satisfactory have found surprisingly unfavorable differences in efficiency when their production records were compared with similar records of other companies. Granting the difficulty of setting standards by which to gauge merits of employees, it must be admitted that differences in degrees of satisfactory performance exist. These differences usually vary from department to department within the same company, which would indicate that there are differences in accuracy of estimate in selection in different kinds of jobs.¹

TO WHAT EXTENT WILL TESTS INCREASE ACCURACY OF ESTIMATE?

That there is room for improvement in selection methods is usually admitted by personnel representatives in those companies where frank and unbiased evaluations of selection methods have been made. The degree of improvement possible depends, in part, on the accuracy with which selections have been made in the past. As indicated, the procurement of sixty to seventy percent satisfactory employees in one hundred placements may be considered good experience where traditional methods are followed, and some figure slightly better than fifty percent represents average experience.

The addition of tests to selection procedures will not bring the efficiency of choice up to one hundred percent. Human nature

¹For a discussion of limitations of traditional methods of selection see Poffenberger, A. T. *Principles of Applied Psychology*. Appleton-Century, 1942, pp. 227-242.
Burt, H. E., *Employment Psychology*. Harper, 1942, ch. XIII.

does not permit the realization of such an ambitious hope. However, tests of reasonable validity will improve the effective average and, within limits, the degree of improvement that can be expected can be calculated. Statistical studies based on analysis of correlation scatter-plots have made possible the compilation of tables which can be used for the purpose of estimating the probable degree of improvement that can be expected through addition of tests of known validity. Since we are interested here only in showing the extent of improvement of prediction through addition of tests to selection methods, illustrative situations will be presented. The reader interested in pursuing the matter further may refer to original discussions of statistical considerations involved.²

Validity of a test is expressed statistically as a correlation coefficient usually designated by the symbol "r." Such coefficients are indexes of relationship expressed as decimal fractions. In the broadest sense a correlation coefficient of .00 means absence of relationship between variables being compared, +1.00 means perfect positive relationship or identical variation of compared items, such as test scores and a criterion of work efficiency, and -1.00 means perfect negative relationship between the two variables. Perfect positive or negative correlation is seldom obtained in any statistical study. The correlations usually obtained in comparing tests with criteria of achievement range from -.35 through .00 to +.65. Since we are interested here only in illustrating possible improvement in prediction through use of tests, the reader must be referred elsewhere for further discussion of the meaning of correlation coefficients. However, in passing, it may be said that the magnitude of the correlation coefficient indicates the percent better than chance of accuracy of prediction progressively in proportion to the magnitude as represented by the formula³

$$1 - \sqrt{1 - r^2}$$

²See Taylor, H. C., and Russell, J. T. "The Relationship of Validity Coefficients to Practical Effectiveness of Tests in Selection," *Journal of Applied Psychology*, Vol. 23, 1939, pp. 565-578.

³For further explanation see Ch. 19, "Interpreting Tests Performance," in Bingham, W. V.

CALCULATING INCREASE IN ACCURACY OF ESTIMATE

Applying a formula for the determination of the percent better than chance of correlation coefficients of different magnitudes provides only a generalization. The actual improvement in selection which will occur through the introduction of tests can be determined only when three factors, including the correlation coefficient, are known. We must know (1) the accuracy of placement in previous employment procedures to which tests are being added, (2) the point in the distribution of scores of candidates below which applicants will be rejected (which is usually equivalent to saying the proportion of persons hired from among available applicants), and (3) the correlation of the test with a criterion of satisfactory performance.

To provide an example of possible improvement of prediction through the addition of tests to the selection procedure, let us suppose that a company that has been selecting by traditional methods rates seventy percent of its employees on a given job as satisfactory. Let us then suppose that they begin using a test to supplement other methods, that they select the four hundred persons who earn the highest scores among one thousand applicants, and that the test is one which correlates $+ .50$ with the company's criterion of satisfactory performance. Reference to tables based on correlation scatter-plots indicates that the introduction of such a test will probably result in the selection of a group of employees eighty-seven percent of whom will prove to be satisfactory where selection of seventy percent satisfactory employees had been the previous record. This improvement represents a net gain of seventeen percent if increase in accuracy of prediction is calculated on an accrual basis, and a relative gain of 24.2% if the calculation is made by using old experience as the basis for comparison.

The example given represents about the best improvement that could be expected in a company that had enjoyed reasonably good success in selection and placement in the past. It also repre-

sents the greatest gain that could reasonably be expected through the use of the very best tests chosen from among those now known, because few existing tests will show a correlation above $+ .50$ with available criteria of successful performance. In fact, the correlation of most tests with performance on the job is lower than $+ .50$. If a test is used whose correlation is lower than $+ .50$, then the amount of improvement will be lower. With the same situation as that presented above, but using a test which correlates $+ .40$ with a criterion, the percent of satisfactory employees or expected selection efficiency would not exceed 83%; with a correlation of $+ .30$ it would be 80%; with a correlation of $+ .20$, 77%; with a correlation of $+ .10$, 73%. Accrual gains with decreasing coefficients as indicated would be 13%, 10%, 7%, and 3% respectively, with corresponding relative gains of 18.2%, 14.3%, 10%, and 4.3% respectively.

Estimation of probable increase in accuracy of prediction, through the use of the tables previously referred to, assumes that there will be variation in the scores earned by a group of applicants. With one thousand applicants the scores earned would, when plotted, ordinarily provide a distribution resembling that found in the normal probability curve and would include a range of scores similar to that which would be obtained from a general unselected population. Acceptance of the four hundred best cases in a group of one thousand, as assumed above, would mean that the lowest score of any person in the group would fall somewhat above the median for the group (theoretically the lowest score among persons accepted would be at the sixtieth percentile—see footnote p. 209). Accepting more than four hundred persons from the one thousand available applicants would mean that the score of the lowest person accepted would become decreasingly smaller as the number accepted became larger. This would cause the acceptance of a larger number of persons who would fall within the area of the scatter-plot which includes persons who are less satisfactory and who, at the same time, have lower test scores.

Accepting a greater number for employment among the one thousand available applicants would reduce the percent of improvement to the point of no improvement whatever if the entire one thousand were accepted. The percent of satisfactory employees obtainable by accepting numbers less than the entire one thousand would be as follows: if five hundred were accepted the percent satisfactory would drop to 84%; percent satisfactory with six hundred accepted would be 82%; with seven hundred, 80%; with eight hundred, 77%; and with nine hundred, 74%. Net accrual gains under the conditions indicated would be 14%, 12%, 10%, 7%, and 4%, with comparably larger relative gains in each instance. These figures are presented in order to show that even though a test showing a fair correlation with the criterion is used the improvement in effectiveness of selection is not great if the critical score is placed too low.

It may be objected that the example chosen is not typical because of the assumption of a large number of available applicants and of a fairly large number of placements. The objection that the number of persons placed at one time is seldom large does not change the situation. It is the ratio of those chosen to the number available that is crucial; practically the same results would be obtained in an experience in which forty people out of one hundred were chosen. The number need not all be chosen at one time; therefore, it is the ratio of selections to rejections over a long period that is the significant factor. More accurately stated, it is the point at which the critical score for selection is designated that is significant. The fact that a smaller percentage of available candidates will be chosen for executive positions than for other jobs operates in favor of increase in accuracy of prediction provided other factors considered have given reasonably satisfactory results in the past. In the example and related statistical illustrations given above, it was assumed that 40% or more of the applicants would be selected. If the number selected from among those who apply, assuming normal distribution, is less than 40%, then the

prediction accuracy increases. With our original example, assuming 70% satisfactory employees now on the job, and the addition of a test with a correlation of $+ .50$, the prediction accuracy would increase with decrease in numbers selected as follows: with three hundred selected from one thousand available candidates of varying ability, the placement accuracy would be 89%; with two hundred selections out of one thousand it would be 91%; with one hundred selections out of one thousand it would be 94%. While these assumptions can be demonstrated statistically, they are subject to correction by other factors.

We have assumed a correlation of $+ .50$ between test and criterion, which is quite high. However, it is still possible to improve accuracy of prediction over previous experience even though a test showing a lower correlation is used, provided greater discrimination is exercised and fewer persons are selected from among those who make the highest scores. With a correlation of $+ .40$ the prediction accuracy would be respectively 85%, 88%, and 91% if three hundred, two hundred, or one hundred persons in one thousand were selected. The percent of satisfactory selections that would occur if the correlation coefficient was $+ .30$ would be 82%, 84%, and 86% respectively; with a correlation of $+ .20$ the prediction accuracy would be 78%, 79%, and 81% respectively. These percentages are based on the assumption that previous experience had provided a proportion of employees considered satisfactory equal to 70%.

Although the gain in predictive efficiency resulting from the introduction of tests seldom exceeds 25%, and more often is no more than 7% to 15%, it should be remembered that such gains represent a margin of improvement over and above previous experience and do not represent efficiency as such. This margin of improvement means the attainment of a goal of accomplishment in prediction of occupational adjustment which no other procedure has made possible and which would not otherwise be attained. It should be remembered, also, that in discussing the net

and relative prediction gains no consideration has been given to other gains, such as the reduction in labor turn-over, the increased employee satisfaction that may accrue, or the increase in group performance resulting from upgrading. These are important gains and should not be overlooked, nor should executives value lightly the important contributions which can be made by tests in the acquisition of ability reserves which may be drawn upon later to fill executive positions.

DO TESTS PREDICT ACCURATELY FOR EVERY INDIVIDUAL?

Employment managers who have introduced tests into their selection procedures have discovered that tests do not predict with absolute accuracy for every individual. Consequently there is no assurance that a given individual will prove to be successful even though his test scores indicate that he should be. This is admittedly a weakness, but the same weakness holds for every other form of prediction involving the human element. Figures given in previous sections of this chapter assume that predictive accuracy is measured by the percentage of successful employees placed. It is inevitable that some individuals will be selected who will give a poorer performance on the job than the average of the group selected, and it is quite possible that some who might have been highly successful will be rejected through low test scores. The success of selection through tests can be measured only by average results.

Since misplacement of an individual is more serious in executive selection than elsewhere, every possible precaution should be taken to avoid such misplacement. The conditions which favor the greatest profit from the use of tests for executive selection are those which obtain: (1) when the tests used are those which have the highest possible validity, (2) when selection is discriminating to the extent that those accepted are restricted to the higher areas of distribution of scores from a general population, (3) when individual profiles are used to supplement group standards, and

(4) when selection by other methods which are being supplemented by the tests has been reasonably successful.

The last point of the four mentioned in the preceding paragraph should be noted carefully. It is frequently assumed that tests will be most helpful in those situations in which previous selection efficiency has not been high. Relatively speaking this appears to be true, for a net accrual gain of 10% in a situation where the average placement efficiency had been 20% would represent a 50% relative gain. In contrast, an accrual gain of 10% over previous effectiveness of 70% would represent only a 14% relative gain. However, it should be noted that the final predictive efficiency in the latter situation would be 84%, as compared with 30% in the situation used to illustrate the possibility of 50% relative gain. The reasons that tests do not provide extraordinarily large increases in predictive efficiency when applied in those situations where the percentage of employees now on the job are adjudged satisfactory are too complicated to present here; however, they relate (1) to the extent to which a particular ability is found in the general population, (2) to the methods of measuring satisfactory performance, and (3) to the contribution made by each selective factor used. Unless the employment procedures used prior to the introduction of tests are highly irrational, the average predictive effectiveness usually will be better than 50% without tests.

Employment managers sometimes feel that it is not possible to use tests discriminatingly when the available supply of candidates is small. Unquestionably fluctuations in total employment do change the general conditions relating to personnel supply, and frequently it is difficult to attract suitable candidates. Under such conditions it may be extremely difficult to secure employees who meet test standards. This condition is not always true for executive position candidates to the same extent that it is true in relation to candidates for other jobs, because placement in an executive position frequently represents promotion from another

job. In other words, candidates for executive positions are usually at hand regardless of employment conditions. This will be true especially if the practice of building up ability reserves is followed. However, the question of supply of candidates becomes important when a company is recruiting new material to be trained for eventual executive responsibility. This is true because there are periods when the demand for college graduates, the best source of potential executive material, is great. When the demand for college graduates is large there may be a smaller relative supply upon which any given company can draw. To some extent the difficulties presented by this condition can be anticipated and selections can be made in those years when the supply is favorable in relation to the demand.

The supply of candidates can be made comparably greater if one individual is tested for several different positions and finally placed in that position for which he is most suited. Considering an applicant for three or four different positions and testing him for all of them is equivalent, insofar as prediction statistics are concerned, to testing each of three or four different persons for a different position. If the principle of testing an individual for several positions is applied co-operatively by several firms in a given community, what appears to be a shortage of applicants may be overcome. Through such co-operation a firm having tested an individual for a given position and finding him lacking in the necessary qualifications for that position but possessing abilities required on a job which another firm is seeking to fill, could refer him to the other firm. Such an interchange would facilitate absorption of available suitable candidates and, at the same time, bring about a net effect which would be the same as that produced by an increase in supply. This proposal has social implications which are highly important, for its practice would tend to reduce occupational maladjustment.⁴

⁴For further discussion on this point see Cleeton, Glen U. *Studies in the Psychology of Vocational Adjustment*. Carnegie Institute of Technology, 1940. pp. 11-14. Also see Cleeton, Glen U. *Occupational Adjustment in Allegheny County*. Pittsburgh Personnel Association, February, 1935.

ANTICIPATING FAILURES THROUGH USE OF TESTS

Where a training period or other trial or preparatory hurdle must be crossed before the new employee is considered to have qualified for permanent employment, it is often possible to predict the approximate number of persons with test scores of a given level that must be hired to provide the company with a desired number of fully qualified workers. Where probationary periods are in use, experiences in most companies have shown that there are certain to be a number of failures. Where traditional methods of selection are used, the number usually cannot be predicted from year to year. Experience of a certain company which recruits fifty or more college graduates per year may be used to illustrate this point. Experience in that company has shown that in some years four or five candidates selected have failed to measure up to standards of satisfactory performance after six months' probation, while in other years the number proving unsatisfactory was ten, another fifteen, another twelve, etc. While the introduction of psychological tests will not eliminate the selection of potential misfits nor specifically indicate all of the individuals who will fail, selection by valid tests usually provides a group of employees among whom there are fewer failures, and, also, makes it possible to anticipate the proportion of failures. Examples which follow show the extent to which success or failure can be predicted.

Psychological tests administered to college freshmen provide a wide range of scores despite the fact that such students are usually carefully selected on the basis of traditional measures of scholastic ability such as high school records. If test scores are used to predict the scholastic success of such students it is found that a high proportion of students who rank high on the tests complete the work of the freshman year with marks of average or better, whereas a high proportion of those who rank extremely low on the test will do work that is below average. When success is measured in a situation of this sort by average or better than average scholastic standing at the end of the freshman year, it is

possible to establish prediction ratios. The ratios obtained in one fairly typical instance with one thousand students selected by traditional methods and then classified by applying psychological tests is shown in Table 10.

TABLE 10
Ratio of Average and Above Scholastic Attainment to Below Average Attainment of One Thousand College Freshmen⁵

Rating on Tests	Number of Students	Ratio of Average to Below Average
A	118	4-1
B	176	3-1
C	353	1-1
D	203	1-3
E	99	1-4
F	51	1-10

Through the use of tests it is not only possible to anticipate the number of failures in proportion to the number of successes, but it is also possible to determine the number of employees that must be selected in order to secure a certain quota of qualified employees. In the example given in Table 10, if one thousand "A" standing persons had been selected, and if the same standards of attainment had been applied, eight hundred would have proved satisfactory and two hundred would have been unsatisfactory; if one thousand "F" standing persons had been selected and standards had been maintained, ninety-one would have proved satisfactory and 909 would have been unsatisfactory. Thus, to fill a quota of one thousand satisfactory persons through the selection of those earning an "A" standing on the tests it would have been necessary to select 1,250. If only "F" standing candidates had been available it would have been necessary to select 11,000 to finish with one thousand who would meet the standard applied.

In industrial applications of tests the variations in ratio of successes to failures is not always as marked, partly because the

⁵Cleaton, Glen U. "Predictive Value of Certain Measures of Ability," *Journal of Educational Research*, May, 1927, pp. 359-360,

degree of ability required is more varied. An experience of one company who administered tests to men selected for a public contact job involving a semi-skill illustrates this point. Although tests were administered the men were selected by traditional methods and were trained for a period of six weeks then put on permanent employment if they qualified, dropped if they failed to qualify. The relation of test scores to successful completion of the training course is shown in Table II.

TABLE II

Ratio of Failures to Successes in Training of Candidates at Various Test Score Levels (Number of Cases, 312)

Score Range	Ratio of Failures to Successes	Number of Selections Required to Obtain 100 Qualified Men	Number of Selections Required to Obtain 100 Qualified Men Eliminating Voluntary Withdrawals
90 & above	1.00:4.51	122	110
85-89	1.00:3.80	126	116
80-84	1.00:2.88	135	123
75-79	1.00:2.64	138	128
70-74	1.00:2.09	148	133
65-69	1.00:1.76	157	143
60-64	1.00:1.47	168	154
55-59	1.00:1.50	167	153
50-54	1.00:1.32	176	162
45-49	1.00:1.14	188	169
40-44	1.29:1.00	229	203
below 40	1.42:1.00	242	218

It will be noted that by applying the ratios of failures to successes it is possible to estimate the probable number of selections necessary at any given score level to fill a quota of one hundred qualified men. On first examination the variation in numbers necessary to obtain one hundred qualified men may not appear great; however, when training costs are considered the savings

which would be possible in training high score men as against average or low score men becomes a significant element. Calculations based on the table will show that training cost would be about 25% more in securing one hundred qualified applicants if they were selected from the middle range of scores rather than the top area. Training costs necessary to obtain one hundred qualified men from the two bottom score levels would be approximately 80% more than the cost of acquiring one hundred qualified men from the top levels. If training costs are figured at the modest rate of \$200 per man, the savings would amount to approximately \$6,000 in the first instance and \$18,000 in the second. Considering the direct and hidden cost of developing an employee to the executive level the value of tests in selecting suitable candidates becomes an important consideration. Development of one executive would easily cost as much as the training of 100 other employees. Accuracy of prediction in selecting executives is much more significant than with other employees.

ARE TESTS BETTER THAN TRIAL AND ERROR?

Ultimately the final worth of an employee is determined by success on the job. Since this is generally accepted as being true the question may be raised as to why it is not a good procedure to try out likely looking applicants and keep those who prove their worth. One good answer is that such a procedure is expensive, as is amply illustrated by data such as those presented in Tables 10 and 11. Another good answer relates to the possibility of becoming burdened with unsuitable employees, which is often a consequence of the trial and error approach. Reluctance to release an employee who has conscientiously tried to render satisfactory service causes many firms to retain marginal and sub-marginal workers.

No executive is willing to accept the trial and error principle nor permit its practice in production activities if he can avoid doing so; therefore, he should shun haphazard procedures in the acquisition of personnel. The whole philosophy of selection presumes that any method which can shorten the length of trial and

reduce the number of errors is worthy of consideration. Tryout cannot be dispensed with wholly; in fact, tests are essentially a brief form of tryout. The use of tests provides samples of behavior which can be reduced to a common denominator for the purpose of comparing several persons on the same kind of tryout.

If the tests which are used in sampling behavior have a close relation to the work to be done, then a sounder basis for judgment is provided. If they do not have a relation to the work to be done, then no worthwhile purpose is served by administering them. The relation between tests and the work to be done is sometimes direct and sometimes indirect; consequently it is unwise to form opinions about tests by noting their general appearance and studying sample questions. Tests should be judged on the basis of demonstrated relationships determined through statistical methods described at various points in this chapter. In considering the relationship between tests and the work done it is not prejudicial that tests sometimes eliminate good candidates and sometimes pick poor ones. The point of decision on the merit of a test should be that of whether it improves accuracy of selection, for other methods likewise eliminate good prospects and permit the acceptance of some very poor ones.

Because of the failure of many companies to formulate clear conceptions as to what constitutes an executive, and because of the broad scope of executive functions, the executive level is one on which the longest period of time is required for a thoroughly conscientious trial and error evaluation of ability. The failure of one man resulting from the use of trial and error procedures may be extremely expensive to the company with which he is associated. Since few corporations in the past have kept accurate and objective records on executives—and fewer still have required minor executives to submit to any of the many available tests—industry has learned little from failures and successes resulting from trial and error. Each success results in added complacency, after each failure the trial and error procedure is often repeated,

and in the end the company may be no wiser than it was before as to the factors which cause executive success or failure. Since the reasons for failure are not always known, they cannot be controlled. Management would not countenance such thoughtlessness in the handling of raw materials or marketing of finished products; therefore, complacency in the face of serious need for research in executive selection is disconcerting, to say the least.

DETERMINING RELATIVE IMPORTANCE OF DIFFERENT TRAITS AND THEIR MEASURES

In industrial positions requiring special traits or abilities there may be distinct differences in the relative importance of separate traits making up the full constellation of the pattern of ability. Many methods have been used to arrive at some sort of evaluation of the relative importance of the elements involved in successful performance. One of these, arbitrary determination, has been widely used in industry in connection with rating scales and has sometimes been applied to test scores. Given a set of traits to be evaluated an individual or committee may examine the requirements of a job and arbitrarily assign values in the form of different weights to be applied to the traits or abilities being rated or tested. The arbitrarily determined weights used by one company in the rating of traits of foremen are shown in Table 12. By using such weights and distributing them over the sections of the rating form it is possible to obtain a rating score for each person rated. A sample score for one foreman is included in the table.

The main advantage of a rating plan that makes possible the assignment of values for different traits is that it provides a basis for comparing several persons rated on the same form. One of the disadvantages of such a plan lies in the fact that summation of trait values sometimes permits extreme weaknesses in one or more traits to be concealed in the total score. For example, a foreman rated on the traits listed in Table 12 might score low on leadership, or any other trait, and still obtain a rating higher than that

of the case cited if other traits were rated high. There are several other shortcomings of the weighted method of rating, some of which are statistical in nature. These shortcomings cannot be avoided by assigning the same value to each trait in the scale, because when values are involved weighting occurs accidentally even though a superficial examination of facts may not make it apparent.⁶ Since this is true it is recommended that rating profiles which have previously been described be used in executive rating rather than value assignment methods.

TABLE 12
Weights Assigned to Traits in a Foreman Rating Scale

Trait	Total Value to be Distributed	Values Assigned to One Foreman
Quality of production	12	9
Quantity of production	10	10
Initiative	10	6
Health	4	4
Safety	8	7
Independence	10	8
Leadership	10	10
Intelligence	12	9
Attendance	4	4
Habits	6	4
Job skill	10	5
Knowledge of costs	4	2
Total	100	78

The objections offered against arbitrary assignment of values and the totaling of them in applying rating scales also hold for tests. Test results are expressed in numerical terms; therefore, it

⁶Accidental weighting occurs in whole scores because part scores in any distribution statistically weight themselves according to the sizes of their respective standard deviations. Standard deviation is the square root of the mean of the squared deviations and is calculated by finding the sum of the squared deviations from the mean of individual scores, dividing by the number of cases, and extracting the square root of the quotient. For technical presentation of this point see Hull, Clark L. *Aptitude Testing*. World Book Company, 1928. Ch. XIV.

$$\sigma = \sqrt{\frac{\sum d^2}{N}}$$

is quite natural for one not versed in statistical method to believe that a sum of all of the scores of several tests in a battery or series would provide a suitable index which could be used in comparing persons to whom tests have been administered. The use of such a method brings into play the two faults mentioned in connection with weighted ratings. High scores in some tests may offset low scores in other tests, and tests with higher standard deviations may exert greater influence in the index than those with lower standard deviations.

Even though scores are equated by some form of re-scaling which makes the total possible score on each test identical, accidental weighting by differences in standard deviations still occurs. Variation in distribution of scores on tests makes the total possible score meaningless. This is shown in a table in the appendix, page 524. That table shows the kinds of variations in distributions which were obtained with the Vocational Aptitude Examination, even though a method of equating scores was applied to make one hundred the total possible score for each test. The only satisfactory methods for making scores on several tests comparable are the computation of percentile scores and standard scores.⁷

The fallacies underlying arbitrary determination of weights of ratings and test scores and accidental weighting through summation methods should encourage rather than discourage accurate determination of weights for rating scales and tests. It is frequently possible to increase the accuracy of prediction by accurate weighting of part scores; however, this is a task that should be undertaken only by someone familiar with the statistical pro-

⁷A percentile represents the rank a person would take among one hundred individuals in a normal distribution when assigned a position counting from the bottom upward. A percentile score is a score falling on the hundred percentile scale at any given point. Thus in the table in the appendix the 50th percentile score on Test 1 of the Vocational Aptitude Examination in the distribution presented is 66.5; the 60th percentile score is 69.5; the 75th percentile score is 77.5; etc.

A standard score, sometimes referred to as a "Z-score," is computed by the following formula:
$$Z = \frac{\text{unconverted score minus mean of unconverted score}}{\text{standard deviation of unconverted score}}$$

Accidental weighting still occurs in the summation of computed scores; therefore, it is recommended that they be used chiefly to facilitate the preparation of individual test profiles.

cedures involved. The method involves the use of multiple regression equations and the task increases in complexity with the number of part scores or variables included.⁸

The determination of optimal weights is often more important for research purposes than from a practical standpoint. This is especially true where valid objective criteria of successful performance are not readily available. If, for example, production records for factory machine operators are available and the purpose to be served by applying selection tests is that of securing workers who are to be judged wholly on a production factor, then determination of weights to be applied to tests included in a battery would be a straight statistical problem. But suppose these operators are to be judged not only by production records but by scrap salvage as well, then it becomes necessary to arbitrarily determine the method for combining production and scrap salvage records to obtain a criterion. Suppose further that housekeeping or keeping working space and machine neat, clean, and orderly is added as a point of reference, then an added factor of cost of repairs to machines over a given period is considered in determining the worth of the employee, then power consumption is added to the criterion, etc., etc.—the addition of elements in the criterion becomes statistically as faulty as arbitrarily weighted ratings discussed on page 208. With a statistically faulty criterion little would be gained by tediously calculating the weight to be assigned to various tests in predicting a somewhat elusive criterion.

The multiplicity of functions which constitute executive ability are so difficult to evaluate and equate into a single criterion that the use of a highly refined weighting method in seeking a prediction index seems somewhat gratuitous, unless the same exacting statistical regimentation is applied in determining the criterion. Until more statistically reliable and valid criteria of executive success are available, practical needs in the application of tests can be met more satisfactorily through the application of

⁸See Hull, Clark L. *op cit.*, Ch. 14, or any standard textbook on statistics.

clinical methods than through strictly psychometric procedures. This conclusion in no way minimizes the value of tests or any other objective measure of executive ability, for good clinical practice necessitates the use of good tools.

THE CLINICAL POINT OF VIEW

No mechanical measuring device can be applied to human beings with the hope of absolute accuracy of prediction. Too many elements influence the success or failure of human beings for one to be able to measure, weigh, and control all of them. Any set of tests will do no more than measure some of the most significant factors common to a majority of the cases to which they are administered. Special factors will enter into circumstances surrounding some of the cases. These should be given consideration along with test results. For instance, in the selection of a person for executive development, tests will not reveal detracting physical defects, nervous mannerisms, or speech stereotypes which might act as deterrents to executive success. Strong racial prejudices, addiction to drink, financial insolvency, and other personal characteristics which frequently prevent executive success must be revealed in other ways than through the use of tests. Information gained in many ways, including confidential investigations, must often be used to supplement information on measured characteristics.

The giving of tests does not mean that impressions of foremen, supervisors, interviewers, former employers, and others should be eliminated from consideration, nor that educational records and occupational history should be disregarded. Rather it has been found that the best results have been obtained from the use of tests when they were considered in a clinical manner—that is, as factors to be considered along with others in arriving at final judgments. It should be borne in mind, however, that test results are more objective than some of the other elements ordinarily given consideration; consequently any contradiction between information revealed by tests and other sources should be

carefully weighed before deciding that the test results are less significant. In essence the clinical method means that contradictions, confirmations, and compensations in factors relating to the candidate will be carefully weighed.

STANDARDIZING TESTS

A number of companies are experimenting with tests. Several firms are attempting to establish their own series of tests. This movement represents progress in the right direction, but often the approach is amateurish. To obviate this the advice of test technicians should be utilized. Sometimes persons pretending knowledge of test techniques offer their services as experts. It is not difficult to determine the professional standing of such persons, because members of the American Association for Applied Psychology and the American Psychological Association are reasonably familiar with the qualifications necessary to conduct research in testing. Referring questions concerning qualifications of persons seeking to do testing work to members of the associations mentioned will usually provide an unbiased professional answer.

Large corporations can well afford to employ test technicians to set up research procedures with a view to perfecting devices for the prediction of executive success. The fact that industry has found it profitable to carry on research in chemical and physical science should be considered as an argument in favor of the extension of research into this important branch of personnel. The prospects of financial return from such an investigation are exceptionally good even though it may not be possible to reflect such returns immediately in company accounts.⁹

Smaller organizations cannot and need not undertake an elaborate program of research, but no business organization can afford to ignore the problem of executive selection or seek to meet it in a haphazard manner. Persons investigating the executive

⁹For a report of an attempt by one large corporation to determine useful items in a series of tests for supervisory personnel see Uhrbrock, R. S. and Richardson, M. W. "Item Analysis," *Personnel Journal*, Vol. 12, 1933, pp. 141-154.

problem invariably find that not only have methods of selection and training of executives been highly subjective, but records on men employed and trained are usually inadequate for the purpose of tracing results of the methods which have been used. The change from subjective methods of selection to more objective ones and the institution of cumulative records for persons in executive work and those who may be moving in that direction would be a step toward the solution of the problem. This would entail very little expense. Objectified rating forms could be substituted for unstandardized and often unrecorded subjective reports with little or no added cost to the firm. For a very small outlay standardized tests could be given to minor executives and results checked against later success on the job. The personnel department or some other management division could be delegated to do this work as an extension of duties ordinarily performed.

Many industrial managers have assumed a passive attitude toward testing, and some seem to believe that the best plan is to wait for suitable tests to be perfected and then purchase them in ready-made form. This attitude retards progress and postpones the possibility of obtaining suitable tests which are ready for use. If, instead of taking a passive attitude, several tests were administered each year and results later checked against measures of success, the elimination of some tests and confirmation of merit in others would provide selection devices at a comparatively small cost.

The administering of tests and carrying out research looking toward standardization of test material is easily mishandled. Many mistakes can be avoided if certain precautions are taken. The most important precautions relate to the procedures in standardizing tests and controlling conditions under which tests are given, whether for selection or research purposes or both. The steps to be followed in the standardization of tests are fairly well established and apply, for the most part, to all types of tests. The

following procedures are those ordinarily found to contribute the most accurate results:

1. Select a large number of tests or test items which appear to have promise either on the basis of personal judgment or in the light of results obtained by others using the same or similar material.

2. Give the tests or selected test items to groups of people for whom a criterion of ability can be obtained.

3. Check the results of the test against the criterion of ability. In making this check each individual item in the test should be made to prove its merit as a selective instrument.

4. Calibrate the items selected as having shown merit in terms of degree of difficulty and arrange in test sections. The difficulty factor is one which may require careful handling. If test items are too easy or too difficult, determination of the power factor is not possible. Speed only is measured where items are too easy, and no measurement whatever occurs where items are too difficult.¹⁰

5. Determine the time limits to be assigned to each section. Set time limits in such a manner that the speed factor is emphasized not more than 50%.

6. Determine the amount of credit to be given to each test item and the relative weight to be assigned to each section in the test battery.

The following precautions should be observed in constructing tests:

1. The test items should be objective and easy to score.

2. The control groups used in experimental work should be representative and sufficiently large to give an adequate sampling.

3. The criterion used in selecting the control groups must be reliable and valid.

4. Only those test items should be retained which show a significant relation between the responses obtained and the criterion of ability as represented by the control groups.

¹⁰Cleaton, Glen U. "Optimum Difficulty of Group Test Items," *Journal of Applied Psychology*, Vol. 10, September, 1926, pp. 327-340.

5. The degree of difficulty of each item should be checked against the criterion to determine the most profitable items to be retained where there is a choice of items.

6. Tests should be arranged so that speed and power are measured concurrently.

7. In determining the weight to be given to each section of the battery and credit to be given to each item no method short of the use of multiple regression equations is justified.

8. Revisions in tests should be made only when justified by new data and experience. This involves eliminations, changes in arrangement and form, and the addition of new material.

9. Standardization should be attempted only by those persons who are willing to familiarize themselves with test techniques and statistical methods.

10. Those who undertake experiments with tests should not let enthusiasm run away with common sense nor expect tests to be infallible.¹¹

CONTROLLED CONDITIONS NECESSARY

An essential point in administering psychological tests is that of maintaining uniform conditions in giving tests. Unless conditions are controlled to insure uniformity, the results of tests are likely to be unreliable. Under one set of conditions results may mean one thing—under another set of conditions the results would signify something entirely different. Test questions administered without controlled conditions do not constitute a reliable test. Control of conditions is not peculiar to the testing of human materials. It is necessary in chemical, mechanical, and biological measurement. The chemist insists on clean glassware, distilled water, chemicals of known purity and strength, and other controls in making tests. Likewise psychological testing requires that variable factors not intended to be measured be held constant.

¹¹Adapted from Cleeton, Glen U. "Testing the Intelligence Test," *Industrial Management*, September, 1926.

Conditions under which tests are given may vary from company to company, but should not be allowed to vary within the group in which comparisons are to be made. The factors which should receive attention are not difficult to control but are dangerous if neglected. Time limits must be set and adhered to rigidly. Other elements which require attention include time of day, tendencies to copy, to converse, or to refer to notes, lighting, ventilation, seating, and provision of needed working materials. Additional controls may be necessary. In setting up the test form and in establishing the controls necessary in administering the test, advice should be sought from someone who has had successful experience in the field of testing. After the test forms have been established, the time limits set, and the working conditions agreed upon, the administering of tests may be done by a specially designated official of the company. If a considerable amount of test work is to be done within a company, it is usually more satisfactory and more economical to secure the services of a trained examiner rather than have several people administer the tests.

Development of Executive Ability

IN DISCUSSING THE EXECUTIVE PROBLEM IN PRECEDING CHAPTERS WE have been concerned with the definition of executive ability, the description of executive functions, and methods of discovery of those traits which contribute to executive success. This section of the book deals with questions relating to the development of executive ability. Two phases of development, training and self-development, will receive attention in the two chapters which follow. For the moment attention will be directed toward general considerations relating to the objectives to be sought in the development of executive ability.

INBORN AND DEVELOPED TRAITS

The most debated question relating to human nature is that concerning the relative importance of inborn tendencies in contrast to practice in the development of proficiency. The limitations placed upon development by inborn characteristics have never been measured with exactitude; hence only working principles or assumptions can be made. The following assumptions are sufficient for our purposes.

1. Inherent ability limits the development of proficiency, but the point at which those limits fall for varying traits in a given individual are difficult to determine.
2. Properly directed practice improves proficiency within the limits of inherent ability.

3. Practice, either incidental, self-directed, or that provided by organized training, is necessary for ultimate development of any trait.

4. Given identical practice, the rate of progress in the development of proficiency is directly proportional to the inherent abilities of different individuals during the early stages of practice.

5. Development of proficiency is proportionately more rapid in the early stages of practice than in later stages.

6. Inherent abilities, such as various forms of sense perception and neuro-muscular co-ordination, are highly restrictive insofar as the development of mechanical skills is concerned.

7. Capacity for abstraction, as measured by mental ability or intelligence tests, restricts the ultimate level of difficulty of material which can be learned by a given individual, but such capacity does not appear to restrict the quantitative acquisition of knowledge which is qualitatively within the limit set by this capacity.

8. Capacities for self-development in different proficiency fields appear to be distributed in the general population according to a set pattern which places relatively small portions of the total group at the lower and upper extremes of capacity. The majority of the total group fall somewhere between the two extremes, thus providing a distribution of abilities which, when plotted, provides a bell-shaped curve.

9. Personality traits which relate to social adjustment appear to be more fluid or subject to freer development than proficiencies based on perceptual, neuro-muscular, or abstractional elements.

10. The fluidity of personality elements relating to social adjustment makes the development of such traits more subject to chance influences than is true of other forms of proficiency.¹

Most of the basic principles set forth above bear a relation to the development of executive ability. Some of the more significant relationships may be set forth as follows:

¹For a general discussion of individual differences in ability see Viteles, M. S. *Industrial Psychology*. Norton, 1932. pp. 57-109.

1. Given the necessary basic talents executive ability can be developed.

2. Properly directed practice will develop ability more effectively than haphazard practice.

3. Improperly directed practice often develops characteristics opposed to executive success. Self-directed practice and that provided by organized training are more likely to develop executive ability than incidental experiences. In other words, the right kind of experience develops executive ability, but experience alone, even though it occurs in a setting calling for the exercise of executive traits, is no guarantee that such traits will be developed.

4. Persons with inherent capacity develop executive ability more rapidly than do those with more limited inherent capacity.

5. Superficial aspects of executive ability can be developed by anyone with average capacity; but the attainment of ultimate success in executive work comes to those with better than average ability who are willing to expend the necessary energy to gain proficiency at an increasingly higher cost in effort during the later stages of development.

6. No particularly strong capacities in sense perception or neuro-muscular co-ordination are necessary for the development of executive ability.

7. Abstract learning capacity equivalent to that possessed by persons in the upper fourth of the general population is indicated as the minimum intellectual abstraction level for the development of executive ability.

8. Persons capable of developing executive proficiency probably fall in the upper quarter of the curve of distribution of those capacities essential to the development of executive ability.

9. Knowledge development for executive success must be broad and varied, and much of this knowledge development must be at the level of comprehension possessed by well-educated adults.

10. Personality traits are highly important to executive success. Because personality traits are less subject to conscious control and

more likely to be influenced by incidental factors than are other forms of proficiency development, the gain in the possibility of development of such traits resulting from fluidity of personality elements is somewhat offset by the difficulty of setting up procedures for their development.

OBJECTIVES TO BE SOUGHT IN EXECUTIVE DEVELOPMENT

Obviously the objectives to be sought in executive development must be determined before a rational plan of development can be formulated. In general the qualities indicated in Chapter III are those which must be developed. Comments relating specifically to these traits appear in a later portion of this chapter. In seeking the development of a specific trait it should be remembered that the executive personality is a total personality and not a series of separately functioning traits. It should also be noted that there is no such thing as a distinct executive pattern which applies to every individual who is a successful executive. To some extent each executive differs from all others, needs of position differ, and modes within different companies vary. Often the individual stamp of the leading executive in an organization limits or accentuates the development of qualities in others. Here as elsewhere in the consideration of development of executive ability the importance of retaining a certain degree of adaptability or flexibility should be kept in mind.

Several persons who have studied the executive problem have suggested the possibility of classifying executives into types and thereby making easier the establishment of procedures for developing personality characteristics which simulate one of the proposed types. One such classification suggests that three types of executives are usually encountered: (1) those who seek to attain their desires by domination; (2) those who lean toward dominant roles but who have learned to attain their purposes by demanding far more than they expect to achieve, and, at the proper moment, compromising for less; and (3) those who seek

to integrate conflicting purposes through co-ordination, acting as a sort of referee. Another classification states that executive variability may be identified as follows: (1) those who seek to attain objectives through prestige inherent in authority of position, wealth, reputation, or prior attainments; (2) those who depend on ability to bluff and out-smart the other fellow; and (3) those who depend on ability to persuade.

If such classifications as those just cited were really genuinely defensible, then the chief problem of executive ability development would be that of selecting the type most suited to the abilities and qualities of a particular personality and intensifying growth in that direction. Unfortunately adherence to type is likely to reduce the effectiveness of executive operation. Ability to shift from one type of control to another, depending upon the demands of varying circumstances, is a characteristic more truly representative of executive ability than the exercise of any of the major traits designated as those primary to the types proposed.

DEVELOPMENT OF CRUCIAL ELEMENTS IN EXECUTIVE ABILITY

Full development of executive ability requires the enhancement of a large number of traits; however, it is quite possible that economy of time and effort may be attained by directing attention to the development of crucial traits in executive ability. Unfortunately no one has fully determined those traits which are crucial. However, a recent study by Dr. Daniel Starch furnishes tentative suggestions which may be used as a basis for specifying those traits which should be considered as crucial.

Dr. Starch studied the careers of fifty heads of large businesses, fifty executives at the mid-level, and fifty heads of small businesses. Personal interviews were used to obtain records regarding father's occupation, early economic status, education and quality of school record, extra-curricular activities, aims as to occupation, work and earnings during school years, first job and

how secured, subsequent jobs secured, and opinions of executives on the qualities contributing to success or failure. From this information Dr. Starch was able to draw the following conclusions:

Among top executives, approximately three times as many went to college as in the lower level, three times as many made school records in the top third of their classes, four times as many pursued studies after their regular school years, and more than three times as many found ways to do their jobs better.

In the upper levels, 50% more began to work and earn before the age of 15 than in the lower level, two-thirds earned all or a substantial part of their school and college expenses, and two and a half times as many had records of working hard and long hours as in the lower level.

The largest difference was in the force of inner drive. In the top level, three times as many had a definite aim in life as in the lower level, and six times as many sought and were willing to assume increased responsibility.

In the judgment of executives at all levels, (1) ability to deal with people is given most frequently; namely, by 80% of executives, as essential for competent executives; (2) ability to think, to size up a situation and decide, was mentioned by 75% of the men in the top group; (3) drive, courage, willingness to assume responsibility and follow through was mentioned by 55%; and (4) hard work by 32%.²

The above analysis confirms conclusions reached by the authors in researches referred to earlier in this book. How to develop the characteristics set forth is a problem which must be faced by anyone who wishes to become an executive and by those companies which are seeking to prepare men for executive positions through training or supervised experience. Before concerning ourselves with the "how" of development, we shall direct attention to the "what" of executive development through a more detailed exposition of the traits believed to be paramount in executive success. The reader will find it helpful to review Chapter III

²Starch, Daniel. "An Analysis of the Careers of 150 Executives." *Psychological Bulletin*, Vol. 39, No. 7, July, 1942. p. 435.

in preparation for the material contained in the pages which follow.

TRAITS OF DECISION

By definition a decision is a conclusion or judgment arrived at after due consideration. Often implied in speech in the use of the word "decision" is the weighing of alternatives of a conflicting or controversial nature. In law, decision signifies a judicial determination of a question. Applied as a personal quality, as in the expression "a man of decision," a strong degree of firmness is suggested.

Ability to arrive at decisions presumes that facts and conditions will be considered, that inferences, both of a conscious and unconscious nature, will lead to a pronouncement of a course of action or the relinquishment of action. It is ordinarily expected that executive decisions will result in favorable outcomes; therefore, discrimination, discretion, and discernment are involved in executive decision. In many forms of judgment involved in decision not only are objective factors weighed, but more subtle elements are detected through insight which casual observers usually fail to perceive. Fine-spun judgments which are based on "hair splitting" distinctions often are impossible in executive decision because of the limits of time. The executive must develop a degree of intellectual acumen which permits quick decisions that will stand the test of later evidence of accuracy or inaccuracy of foresight.

Contrary to popular belief, quick judgment and decision need not degenerate to the level of "playing hunches." Often an executive who appears to be using snap judgment is drawing on a vast fund of information; frequently he is merely reporting a decision which he has previously arrived at in anticipation of the time when such a decision would become necessary. Executive imagination anticipates questions which may arise and permits the formulation of decisions which are held in reserve against the time when they may be needed. Many such decisions are

never called into play because the anticipated problem may not arise, and sometimes decisions in anticipation are revised before they are used.

Closely associated with decision in literary depictions of character and personality in fiction and biography are the qualities of determination and resolution. Determination implies rigid adherence to a decision, purpose, or course of action, once arrived at, even to the point of obstinacy or foolhardy inflexibility. Resolution is often used to describe a freedom from fear of consequences, a constancy or steadfastness of courage. These are important correlatives of the ability to make decisions, but insistent adherence to decisions regardless of merit can become a fault—one which will wreck a career unless astute decisions far outnumber those which are less sagacious. Determination and resoluteness are essential to stimulating leadership, but dogged adherence to a faulty decision may become extremely expensive. On the other hand, too frequent change of decisions gives the impression of inaccuracy, uncertainty, and vacillation.

Ability to reach decisions has been cited as the distinguishing mark of an executive. The functions of the executive make this necessarily so, for the power and authority for making decisions is lodged in the executive by the commonly accepted form of corporate organization. This trait alone does not make a successful executive, yet it overshadows other traits in importance. Weaknesses elsewhere may be compensated for satisfactorily, but not so with decision. Nothing constructive is done without decision, and he who makes decisions is exercising executive functions regardless of the title of the position he holds.

The extent of variation among people in ability to make decisions can easily be observed. Some persons arrive at decisions quickly, whereas others are slow to reach a conclusion, are hesitant, or over-cautious. Promptness in reaching decisions has executive value, but speed of decision is not the full test of the ability.

Qualitative factors referred to as soundness, accuracy, and trustworthiness are equally important.

The appropriate form of action under certain conditions is delay of decision rather than speed of decision. Circumstances often arise which not only justify, but even require suspension or postponement of judgment. This is especially true when conditions being studied require additional information or supporting evidence. Paradoxically, suspended judgment itself presumes the exercise of decision. The person contemplating decision must weight all facts, consider them in relation to each other and the ends being sought, and then estimate the probabilities of arriving at a reliable and valid conclusion before presenting a decision. If the weight of probability is unfavorable for decision, suspended judgment is the course of action indicated. In such cases there should follow a vigorous search for evidence which will tip the balance one way or the other, rather than vacillation or the pretense of considered judgment in a hasty decision that is little more than a guess. However, where a search for evidence is futile, it may be necessary to temporize and postpone decision, or even hazard a guess. If such action becomes necessary, it should be accomplished with a show of ingenuity and adroitness which will command respect. If those with whom an executive must work believe that the boss is "stalling," "passing the buck," or "reaching into thin air" for his decisions, they will begin to doubt the soundness and efficacy of his mental processes.

Once arrived at, a decision should be expressed objectively. Any effort to display erudition, tendency to speak in parables, or the use of circumlocution should be strenuously avoided. There is definite evidence that decisions are not being objectively stated when, as is often the case, lesser officials leave a conference and ask such questions as, "What did the boss mean?"

It may be assumed that the majority of decisions need not be defended. Any executive who follows the practice of always defending his decisions gives the impression of offering apologies.

On the other hand, an executive should not refuse to offer a reasonable explanation for a decision if such an explanation is requested.

TRAITS OF RESPONSIBILITY

Ability to carry responsibility is so closely related to ability to reach decisions that it is debatable whether these two qualities can be separated. Accountability for decisions is one of the main influences underlying the willingness to offer a decision. Material values and human welfare and happiness are usually at stake in executive decisions. Over-conscientious regard for material or human values breeds a hesitancy which often spells failure in executive functioning. On the other hand, lack of concern for material values often leads to dissipation of such values, and lack of regard for human welfare and happiness often breeds resentment.

Responsibility for decisions is made more difficult for executives by the fact that decisions often involve conflict between material and human elements. It often appears that preservation of material values or enhancement of such values through gains are possible only through exploitation of human resources. On the other hand, preservation or extension of material values has been one of the greatest weaknesses of executives in the past, whereas the sacrifice of material values to satisfy maudlin sympathy for human wants, magnified out of proportion to actual needs, is the prime weakness of the political exploiter. Somewhere between these two extremes the modern executive must seek opportunity to meet his social responsibilities.

In the same manner that making decisions is lodged with the executive in modern corporate organization, so is responsibility placed with the executive. One who makes decisions must face consequences of such decisions and take responsibility for actions based on them. Often an executive is legally liable for actions carried out under his direction, and he must always be socially and ethically accountable. Not only is the ability to assume responsi-

bility an executive quality, there must also be a keen willingness to do so; satisfaction must accompany the acceptance and exercise of responsibility. If, instead of satisfaction in the acceptance and exercise of responsibility, there results stress, strain, or worry, then the person trusted with responsibility does disservice to himself by undermining health and peace of mind. Under such circumstances the capacity for efficient exercise of executive functions deteriorates progressively, and the individual eventually becomes unfit for executive work.

The person who becomes nervous, fussy, or finical, or who anticipates troubles which often do not materialize, is emotionally incapable of providing the personal direction which makes for smoothness and effectiveness of company operation. Executive ability implies willingness and ability to face responsibilities calmly, ability to deal with facts objectively, and capacity to stand up under fire when things seem to go wrong. A resolute purposefulness must permeate every executive act, and this cannot be true of one who cannot accept and deal with consequences as readily as he plans and develops courses of action for himself and others.

TRAITS OF HUMAN SENSITIVENESS

Responsiveness to human traits and individually varying reactions has been held to be an important part of executive ability by every person who has studied the executive problem. This need has been expressed in many ways, but the following quotation sums up the situation in a very practical manner.

The manager must re-educate himself in the homely principles of dealing with the men and women under him—remembering to treat them not as numbers on time-cards or units on a pay roll, but as living, breathing people with aspirations that should be respected, feelings that can be deeply hurt, and human dignity that no man has a right to defile.

The manager must re-learn some of the ways his predecessors of two generations ago could apply unconsciously, because their enterprises were smaller and they themselves were closer to their people. He

must reacquire arts of kindliness and persuasion, the real tools of leadership.⁸

Mere theoretical knowledge of the characteristics of man is not sufficient for the executive, because work on executive level requires that self-knowledge, self-control, and self-direction be balanced against the practice of rational human relations in such a manner as to avoid the arousal of self-consciousness in the executive or those with whom he works. A knack of dealing with people must grow out of an understanding of human sympathies, passions, intellect, motives, ambitions, and common patterns of behavior.

Some students of human abilities have suggested that social intelligence, which is in some way related to sensitiveness to human traits, differs from abstract and mechanical intelligence. Efforts at exact definition of social intelligence have not been as convincing as definitions of abstract intelligence. Older ideas of social intelligence implied that persons who rated high in the possession of the quality were identified by gregariousness, either by nature or habit, but that particular characteristic seems to be better described as sociability. The trait of sociability is usually associated with the idea that a person possessing the quality is inclined by nature to seek companionship with others, is free, familiar, affable, communicative, accessible, and informal, as against being solitary, cold, or reserved. It will be readily recognized that the traits listed in a definition of sociability more nearly describe the salesman than the executive. The kind of social intelligence which is more nearly characteristic of the executive has been variously described and can be summarized as follows:

1. Judgment of social situations which makes possible the choice of the more appropriate of alternate solutions to problems involving social relations.

⁸Heyel, Carl. *Human Relations Manual for Executives*. McGraw-Hill, New York, 1939. p. 1.

2. The recognition of mental states of others through cues provided by speech, facial expression, gesture, posture, and general manner of response.

3. A general knowledge of the principles of human behavior which makes possible the anticipation of probable social responses to particular situations.

4. Memory for names and faces.

5. Broad interest in human problems which makes possible the extension of attention to a wide range of individual cases.

6. Strategy in planning actions which will elicit favorable responses in others.⁴

The executive who indulges in bluffing, bullying, and boisterous argument is running counter to human nature. Bulldozing may sometimes secure perfunctory obedience, but such methods do not elicit wholehearted efforts by subordinates. Soldiering, walk-outs, strikes, and other forms of industrial strife may be the net result of continued display by executives of qualities which do not call forth willing response in others. This is not to say that bluffing, use of domineering techniques, and pointed arguments are not sometimes successfully resorted to by executives, for such techniques are sometimes deliberately used to attain desired objectives. It is the continued and unvarying use of abrupt and irritating manners that provokes and exasperates others.

It must not be assumed that the executive personality resembles the kind of personality one is advised to cultivate in popular books on persuading and influencing people. The Pollyanna, spineless type of human doormat presented in such books would not only fail as an executive, but would probably be a

⁴Moss, F. A. and Hunt, T. "Ability to Get Along With Others." *Industrial Psychology*. Vol. 1, 1926. pp. 170-178.

Hunt, T. "What Social Intelligence is and Where to Find It." *Industrial Psychology*. Vol. II, 1926. pp. 206-215.

Thorndike, R. L. and Stein, F. "An Evaluation of Attempts to Measure Social Intelligence." *Psychological Bulletin*, Vol. XXXIV, 1937. pp. 275-285.

Gray, J. S., Ed. *Psychology in Use*. American Book Company, 1941. Ch. 11.

Wright, M. *Getting Along With People*. McGraw-Hill, 1935.

Webb, E. T. & Morgan, J. J. B. *Strategy in Handling People*. Bolton-Pierce Co., 1931.

rather nauseating person to be associated with. The executive attains his ends by knowing what he wants to accomplish, making plans to accomplish those ends, selecting people to carry forward his purposes, and motivating them to do so through an understanding of human nature, rather than by trying to make of himself an ingratiating hand-shaker. The executive does not seek gratitude but aims at results through straightforward methods and avoids sedulous efforts to please through subtle and suave persuasion.

Ability to recognize individual differences in the capacities of others and properly gauge them is closely related to the problems of responsibility. No executive can do all of the work which naturally gravitates toward him as a consequence of the key position which he holds; there must be constant deflection of matters clamoring for the attention of major executives. Many problems must be referred to others to whom power of investigation and decision has been delegated. Frequently, people who can arrive at excellent decisions in the field of more exact material facts fail in their efforts to properly size up and select subordinates in whom they can place trust for the exercise of judgment involving human factors. Executives who find that they, themselves, are not sensitive to human qualities can compensate for this deficiency by making direct contacts with personnel the responsibility of others who are more gifted in this particular ability. If such is done, the judgment of the person in whom the responsibility is vested should be trusted—the practice of delegating such responsibilities, then reviewing decisions and frequently over-ruling them is fatal.

In dealing with the human element the executive must make three-way adjustments. He must deal with subordinates, with those of equal rank, and with superiors. Sensitiveness to human traits is involved on all three levels, but shifts in point of view are necessary to accomplish varying objectives on the three levels. On the level of subordinates the executive has power to advise,

instruct, and eliminate if necessary to secure properly functioning personnel; whereas, those of equal or superior rank must be accepted, and dealt with co-operatively. Here, then, greater ingenuity is required and self-control must be at its highest.

The type of behavior sometimes referred to as a "show of temperament" is distinctly out of place in dealing with officers equal or superior in authority. Personality extremes such as highly developed extraversive or introversive characteristics are likely to restrict co-operative adjustments. Likewise any inclination toward quibbling over fine distinctions as to authority or indulgence in other petty legalisms is likely to bring conflict. Unwillingness to compromise is disastrous; so also is a fawning yes-man attitude; but a studied attitude of sincerity is distinctly helpful.

TRAITS WHICH COMMAND RESPECT AND CONFIDENCE

Personality is defined psychologically as designating the sum total of all the traits of the individual, an integrated group of mental traits, emotional trends, and behavior tendencies. In popular usage the term often designates a distinction or excellence of personal and social traits, appearance and manner which impress others favorably. In the psychological sense the executive must be an integration of those traits which facilitate executive functioning. In the popular sense the executive must develop and display those characteristics that build and maintain the confidence of others, particularly those whom he must supervise or with whom he must associate in the daily discharge of responsibilities.

Arousing confidence in others is related to manner or general attitude in one who fills a position of leadership. Obtrusive self-sufficiency often arouses resentment; whereas, self-reliance, poise, and quiet self-possession wins favor. Diffidence, mock-modesty, and self-abasement are as much out of place in executive manner as cocksureness, impudence, rudeness, and cruelty.

In dealing with others the executive must be direct, courteous, and confident, rather than hesitant, uncertain, and apologetic. At times there is a strong temptation for the executive to resort to

evasion, equivocation, or subterfuge when confronted by questions of policy because so much rests on executive pronouncements. Some executives make a game of sparring and parrying questions as a matter of self-defense. Sparingly used the quality may have merit, but it is not an executive characteristic that should be cultivated.

In his contacts the executive should be dynamic, which means that there should be manifestation of energy and personal agency. A dynamic force is active as opposed to static or potential. Executive action must energize others; therefore, the executive should be a self-starter—he must not wait for pressures from without to initiate action. But the executive need not be a strepitous mob leader; his function is that of motivating smooth, co-ordinated, and effective personnel relations.

In appearance the executive should be neat, conventional in dress, and carefully groomed. His appearance should strike one as being clear-cut and free from ostentatious ornamentation. Physical build may make a favorable or unfavorable impression, but it is extreme variations that are likely to be most detracting; extremely tall, short, or fat people must usually find ways to compensate for their abnormal appearance. Blemishes, facial scars, and deformities are initially detracting in those who must direct others, but even these characteristics can be compensated for in other traits.

Loyalty is the most valuable quality that executive leadership can command. Loyalty to the executive or the company he represents permits faults and mistakes to be accepted. This is essential, for there will be faults and mistakes. If employees are not loyal, executive and company shortcomings are magnified, whereas they are minimized when worker loyalty is high. Allegiance grows out of feelings and sentiments; it arises from subjective feeling of obligation rather than more objective legal or contractual obligations. The alleged treason, treachery, and perfidy of which groups of otherwise satisfactory workers have been accused

in recent years represents a transfer of loyalties from company leaders to labor organization leaders. Whatever the name that industrialists may apply to this transfer of loyalties in those instances where such has occurred in recent years, it represents a stronger appeal to workers' feelings and sentiment than executives were able to make.⁵

The old type "boss" got lip-service and used fear as a substitute for loyalty, but today no organization could go far by using fear as the aligning force. Natural leaders have secured loyalty ever since time began. Kings and priests and dictators have aroused loyalty in others despite important personal shortcomings. Because of credulity, followers of political and religious zealots have suffered indignities, lived in sacrificial destitution, and, often, have yielded their lives in service to a cause built almost wholly on promises of ultimate rewards which fire the imagination. Unfortunately demagoguery is a full-time job thriving on the technique of promising much for nothing and making delivery in new promises. In the past many leaders in business and industry have played upon human weaknesses after the manner of the demagogue—today most of these practices are curbed by legislation.

TECHNICAL KNOWLEDGE, EXPERIENCE, AND TRAINING

It has been pointed out elsewhere that a broad general education is an asset for an executive. Narrow, specialized training in economics, finance, accounting, and business administration is not in itself sufficient training for executive functioning. Typical liberal arts education is no more effective, and specialization in law, engineering, or any of the other professional curricula is likely to be less satisfactory. To be frank, no educational program in itself is adequate for executive preparation, but broad study,

⁵Some executives will dispute this point and assert that workers were encouraged to transfer loyalties by national legislation. To this one might respond by asking the source from which such national legislation arose. Projection of blame is hardly an executive trait.

extensive reading, and observation based on cosmopolitan interests helps.

Experience of a varied nature following broad general training which includes study of modern social problems is useful as background for executive responsibility. Being an apt student and an alert observer makes study and experience more effective. Experience alone following limited education was sufficient for executive preparation in an earlier period, but the odds are high against experience alone being sufficient today. Experience under close supervision of a capable executive is more valuable than experience gained through discharge of specialized tasks clearly defined by the job.

Executive training will be discussed more fully in a later chapter. There is, as yet, no satisfactory executive training program operating in any American educational institution either on a graduate or undergraduate level. It is doubtful whether such a program could succeed unless a method of carefully selecting students, different from any now operating, were established. It is further probable that a program of instruction for executive development, to be successful, would pay as much attention to personality growth as to growth in knowledge and information. The traits requiring attention in executive training are those described in this chapter; the fields which should be stressed are those discussed in Chapter II.

In production industries the executive must operate in close relation to technical knowledge growing out of engineering applications of science. However, technical knowledge of a scientific nature is only a tool in the hands of the executive, and its possession, without the other executive qualities, will not prove effective. The situation here may be compared to the brushes and paints of the artist—without his imagination, discernment, and skill of hand, no creative product would be forthcoming. The great artist will get necessary brushes and paints, and the true executive will acquire the necessary knowledge of subject matter.

What it will be varies with the task at hand. True executive ability is transferable from one field to another with some rather definite limitations. It includes the capacity to master the necessary technical knowledge, but undue emphasis on the importance of subject matter often kills creative ability.

INTEGRITY, FAIRNESS, AND SINCERITY

Integrity is a basic virtue that requires little argument to support it as an executive trait. Moral soundness and uprightness commands respect, but social demands require a high degree of honesty in executives not only because it is good policy, but because the modern view holds that the executive position, even though it be in a private corporation, is one of public trust. The great Insull and Hopson scandals are excellent examples of downright disregard for the interests of workers, public, and stockholders arising out of lack of executive integrity. The tricky individual can easily practice sharp dealing if he is shrewd and has control of financial policies. The temptation is one that is too great to place before a man of weak character; therefore, only those in whom full confidence and trust can be placed should be permitted to become executives.

Fairness is related to honesty; we assume that frankness and candor characterize the thinking of the fairminded person; we assume that such persons conform to established rules of the game in spirit as well as form. Negatively, fairness implies absence of injustice, lack of prejudice or predisposition; positively, it implies a regard for equity and mutual interdependence of the various interests involved. Not only must the executive try to be fair in situations involving conflicting interests, but he must also try to convince the various parties involved of the fairness of decisions made.

Selfishness, which is common in human beings, demands immediate satisfaction at the expense of future welfare. Short-sighted management is likely to disregard the desires and comforts of others. The successful executive tries to weigh the interests of

all concerned and avoid being swayed too greatly by selfish interests regardless of the source. In discharging the responsibilities of an executive position the holder of the position should be guided by the view expressed by Richard F. Grant, who, as president of the United States Chamber of Commerce stated: "No man or group of men can long hope to prosper at the expense of any other individual or group." Our entire modern business structure is founded on confidence, since confidence and mutual trust are the essence of credit.

The executive attitude must be unaffected, genuine, and sincere. Perfidy, affectation, deceit, and hypocrisy are contrary to executive nature. False ideas of self-importance, display of physical strength, use of violence, or obtaining compliance through compulsion and coercion are foreign to modern executive action. Mental and emotional vigor are related to physical vigor, but in the executive the physical is held in restraint. Good health, therefore, is a necessary requisite to executive success.

Continued expenditure of energy in a given direction depends on interest and ambition. Ambition in its simplest form is usually present in sufficient strength in one who aspires to an executive position; however, a wish may be mistaken for ambition. A wish may be aimed high but unless it results in action it does not constitute ambition. Ambition can be developed by focusing attention on the advantages to be derived from attainment of an objective. True ambition suggests an intense desire for preferment, honor, superiority, power, or attainment. While self-interest is implied in ambition, it can be made to serve social objectives as well as selfish ones. In fact, some great men have made little effort to gain power until they discovered some wrong to be righted.

Interest is a great driving force without which long-sustained effort becomes difficult if not impossible. Interest has been defined as continued attention with a sense of concern. A sense of satisfaction is implied; therefore, interest can be increased by growth

in awareness of a relationship between an object or activity and state of personal well-being. Repetition of acts with satisfaction strengthens interest, fortifies ambition, elicits further expenditure of energy, and eventuates in persistence which is a part of perseverance.

Steadfastness and resolute adherence to purpose characterizes perseverance, but unintelligent exercise of this trait may result in perverse obstinacy. Tenacity may easily become pertinacity, yet a worthy purpose must be pursued despite fatigue, discouragement, and seemingly insurmountable obstacles. Failures tend to destroy the power to persevere; therefore, a well-managed plan of action provides opportunity for distribution of less arduous undertakings among those of greater difficulty. Focusing attention on the pleasant aspects of an undertaking also helps.

Facing adversity and difficulties without fear or timidity, display of simple courage, is corollary to perseverance. True courage, however, is fearless action in the light of careful consideration of the strength of forces in a given situation. Bravado is frequently nothing more than a defense mechanism of a soul afraid to face facts, especially the fact of his own timidity. Courage in action is only one aspect of executive ability, for the making of decisions requires a fearless weighing of evidence. The competent executive makes his decisions in the light of available facts then concentrates on his objective and does not let the risk cause him to waver. Like a tightrope walker he keeps his eyes steadfastly on the goal and does not look down; but courage is a quality that will not let you get on the tightrope unless you are competent. Only those who fear that others will discover their weaknesses are driven to undertake the impossible.

Hard work certainly is not the distinguishing mark of the executive, yet successful executives work hard. They are industrious, which means that they are steadily and perseveringly active. But of equal importance is the fact that efforts are intelligently directed and properly distributed. The purpose of execu-

tive effort is not to devote a certain number of hours or a certain amount of energy to a given task but to get the task accomplished regardless of the hours and energy required.

ABILITY TO INSPIRE, TEACH, AND DEVELOP MEN

The ability to inspire, teach, and develop men is of fundamental importance in the executive. It may appear that these three terms are redundant; therefore, it should be pointed out that emphasis is to be placed on the development of men, which is used here in the sense of promotion of growth. Purposes are accomplished more readily in companies which follow the policy of encouraging employees to make use of latent possibilities. Such possibilities are quickened and awakened through inspiring leadership and true teaching occurs only where such inspiration is provided. The executive who promotes growth in those with whom he is directly associated causes his immediate associates to stimulate others.

The executive is not a teacher in the classroom sense, although he may at times find it necessary to communicate knowledge to individuals or groups under his supervision. It has been found that the conference method is more satisfactory in executive teaching than ordinary classroom procedures. In individual contacts the executive is constantly transmitting information; therefore, some of his teaching activities are essentially on a tutoring basis. Whether presented individually or to groups, the material presented is absorbed more readily if presented clearly and interestingly. All executive teaching activities should encourage those who are being taught to engage in further study.

Many investigations have been undertaken to determine the traits which are characteristic of good teachers. One such study provides us with a list of ten characteristics of the good teacher which are, interestingly enough, closely related to the traits which have been found to be characteristic of successful executives.⁶

⁶Charters, W. W. & Waples, Douglas. *The Commonwealth Teacher-Training Study*. University of Chicago Press, 1929.

The traits listed as being desirable for teaching are: (1) breadth of interest, (2) self-control, (3) good judgment, (4) forcefulness, (5) scholarship, (6) honesty, (7) adaptability, (8) open-mindedness, (9) enthusiasm, (10) co-operation. It may be said that the good teacher need not be an executive, although obviously executive traits would be advantageous in many teaching situations. However, the good executive should be a capable teacher, and some of the traits which make one executive in caliber contribute to ability to teach.

ANALYSIS AND DISCRIMINATION

Every situation or problem is composed of several elements which stand in compensatory relationship to each other. It is a characteristic of human nature that it is easier to perceive a problem than to comprehend the factors which underlie it. Furthermore, it is typical for people to be influenced by interests, training, emotional attitudes, and other forms of personal bias in seeking to understand the true meaning of any situation. So potent are the forces of bias that many forms of systematized self-delusion operate in the mental processes of the average individual. The executive must not only have the ability to analyze, but must be able to guard against self-delusion.⁷

Analysis which distinguishes elements separately is insufficient for executive functioning; executive analysis requires that the relation of elements to each other and to the whole be appraised. Algebraic logic must be used even though mathematical calculations are not always used. Geometric intuitionism has little application in executive analysis, because there are no self-evident truths which apply to the miscellaneous data which passes in review in the day of a busy executive. True there are policies and principles which are frequently accepted as operating hypotheses, but as such they must be continually re-examined and revised.

Executive discernment and discrimination is more conscious than that of the average person. Insight as exercised by the execu-

⁷See Ch. XI, pp. 308-311.

tive is based on experience, knowledge, and objective evidence not readily available to others. The executive cannot build a universe on dogma and maxims; his solutions cannot be the easy ones of the doctrinaire because his world is one of stark reality. If exact data are not available, he must estimate with a closeness of approximation that resembles an engineering calculation. Such estimates must often be of a varied nature involving time, space, form, and arbitrary standards of value, and evaluation must often be made with both a backward and forward appraisal.

Power of concentration, wide span of attention, and imagination seem to be involved in executive analysis. Quick perception and originality must be supplemented by a tenacity which refuses to relinquish a problem until a satisfactory solution is achieved. Trial and error, if used, must be applied as a tool and not as an easy escape from more systematic analysis. The method of attack must be that of an inquiring and attentive mind, but the painstaking dissection and segregation of the scientist must often give way to shortcut methods which provide answers that are within the probable error of more carefully calculated computations. Ability to discriminate the relative importance of factors in typical situations usually develops through practice. Yet a critical open-mindedness must constantly be maintained, for that which appears to be a typical situation may prove to be atypic.

Analysis as a quality in executive ability is not an end in itself. Its purpose is usually that of arriving at a decision. Most of the problems confronting management are complicated. Some of the factors involved frequently suggest the advisability of making one decision while other factors suggest different, often contrary, decisions. Unless the problem is completely analyzed and each element given its proper weight so that a discriminative decision can be formulated, the results cannot be expected to be satisfactory.

Companion to the power of analysis is the power of organization. To organize implies the arrangement of constituent, inter-

dependent parts into a functioning whole. This capacity of the executive must be exercised not only in the systematizing of the various parts of the business concern which he must direct, but organization of thinking must precede the making of decisions and assigning of responsibilities. That which comes into being as a result of executive action must first exist in the mind of the executive.

OPEN-MINDEDNESS

The modern executive invites suggestions from subordinates; therefore, he must cultivate the trait of open-mindedness. Receptivity to ideas and arguments need not imply mental dependency, inconstancy, or capriciousness; in executives it means a willingness to hear those who should be heard, to accept ideas regardless of source if they contribute to wise decision and prudent organization. Open-mindedness is not synonymous with gullibility; a person may demand substantiation of alleged facts and still be open-minded. Most things cannot be proved with absolute finality; therefore, the open-minded person is willing to change an opinion when the amount of evidence presented is sufficient to tip the scales in favor of the new point of view regardless of the strength of previously held convictions.

The right decision today may not suffice tomorrow; therefore, the executive who refuses to keep his mind open to new facts materially lessens his own chance for success. Prejudice is one of the greatest stumbling blocks to wise decision; since prejudice is blind it is a perverse imp who fools no person but his host. Group conflicts, particularly those involving employer and employee, feed upon close-minded prejudice. A scientific attitude embracing a spirit of inquiry and willingness to admit new facts is good insurance against prejudice.

TACT

Although we have pictured the executive as being a frank, sincere, firm, decisive, and straightforward individual, there are times when tact must be used in handling problems involving

persons of diverse views and interests. Tact assumes a consideration of the feelings of others. It means a sensitive awareness of the appropriate thing to do or say in dealing with others to avoid giving offense. In some situations it may mean skill and adroitness in handling conflicting elements.

Tact requires careful self-government and the exercise of self-control. Fits of anger or any other loss of self-control destroy the possibility of tactful handling of a situation. The mature intellect disciplines emotional nature and does not allow passions to overrule judgment. Cultivation of a sense of humor helps in the maintenance of self-control and thereby aids the executive to meet trying situations in a tactful manner.

Like many other traits, however, tact and sense of humor can be carried to extremes. There are times when, for the good of all concerned, some persons must be handled in a manner that will leave no doubt as to the fact that their actions are being condemned. There are individuals in the world who, because of perversities of personality, neither appreciate nor respond to tactful treatment. Too, if tact is overdeveloped, a feeling of distrust may be aroused. Sometimes such distrust is not wholly misplaced for the overtactful person sometimes indulges in *sauve* deceit; tact when overdeveloped may become guile.

HEALTH

Physique in terms of body structure does not make nor bar one from being a successful executive. Impressiveness of appearance helps, but lack of physical impressiveness can be compensated for in many ways. Health for executives, however, is another matter. Executive functioning requires a degree of drive and vigor which exceeds that required in other forms of occupational activity. Recurring periods of illness, nervous indisposition, and the minor ailments, of which many persons frequently complain, undermine executive efficiency. Tendencies toward ill health are greatly aggravated by the arduousness of executive effort, especially insofar as the discharge of nervous energy is concerned.

Natural capacity for good health supplemented by wise self-management to maintain a satisfactory state of health are desirable executive traits.

QUALITIES TO BE AVOIDED

It is almost as important to avoid certain qualities as it is to develop others if one is to become a competent executive. The following characteristics, unless offset by desirable traits, greatly limit and frequently destroy the effectiveness of executive control.

1. Tendency to spread suspicion and fear among employees.
2. Lust for power shown by autocratic self-assertion.
3. Failure to take employees into confidence, thus failing to reveal attitudes and intentions. Under such conditions subordinates grope about in the dark in trying to carry out policies which are obscure.
4. Disregard of desires of employees for self-expression opportunities; treating employees as though they have no right to expression of opinion or that their opinions are worthless.
5. Unwillingness to accept social responsibility.
6. Permitting concern with practical and immediate purposes and objectives to blind imagination and foresight.
7. Tendency to overemphasize financial incentives and to measure progress purely in terms of production and profits.
8. Failure to realize that judgment of employees is immature, that on many problems their minds are those of children. Or, when such realization occurs, treatment of employees in a patronizing, "wise father," manner.
9. Dependence exclusively on punishment and reward as motivating forces; using a sort of threat-and-bribe-as-you-go procedure.
10. Failure to co-operate with others in working for the common good of all.

Executive Training

EXECUTIVE TRAINING IS AN EXECUTIVE FUNCTION; IT IS A RESPONSIBILITY that should not be delegated to a specialist or staff officer who does not have managerial authority unless the person to whom such responsibility is delegated is recognized as a personal representative of a company official. The development of junior executives is sometimes made the responsibility of personnel officers, but it is often true that such officers are handicapped by separation from authority. It is logical that personnel officers should supervise executive training because other training activities are conducted under the supervision of the personnel department. Conditions differ from company to company, but all too rarely have personnel officers been given authority to carry on effectively a job as important as executive training. The selection and training of operators and clerks can be done by a competent person under delegated authority, even though he is not in close touch with higher executives; executive training cannot.

POLICIES IN EXECUTIVE TRAINING

Some companies carry on a well co-ordinated training and development program for executives. Others scatter attention insofar as this problem is concerned, and some appear to trust to luck to produce candidates for executive positions when they are needed. Trusting to luck has been sufficiently condemned elsewhere in this book to require little further comment. Trying to solve the executive training problem by intermittent attention accomplishes little more than the luck-trusting policy. The only

effective policy is that of having a planned program whereby an adequate supply of candidates who have the necessary personal qualifications, training, and experience is being developed for key positions.

Even though a positive policy of executive development is in operation, the procedures and practices differ from company to company. A study conducted under the auspices of the Graduate School of Business at Stanford University,¹ involving thirty-one nationally known companies, reveals the following variations in policy:

1. Most companies attempt to earmark potential executive talent, and some attention is given to the progressive development of such men.

2. Some companies require that each executive train a successor before he himself can be advanced.

3. One company provides double desks for all executives, with a candidate for ultimate responsibility sitting opposite the present executive. The men in training act as assistants to the executive, make field studies for him, investigate special problems, and fill in on the job when the executive is away from his desk.

4. Some companies carry on joint discussions with subordinates and provide training through the process of explaining current policies and practices to subordinate groups.

5. One company has what is called a "five-year plan." Each supervisor and manager is expected to lay out a five-year program of development and improvement for operations under his jurisdiction. Training of subordinates is included in the plan.

6. Several companies indicate that periodic meetings are held in which top executives meet with key operating and staff members to discuss major problems, review changes in policy, and present other material which will bring about a better co-ordination of activities.

¹Holden, P. E., Fish, L. S. and Smith, H. L. *Top-Management Organization and Control*. Stanford University Press, 1941. pp. 114-116.

7. Most companies recognize two aspects of the executive training problem: (a) to train executives to function more effectively in their present jobs, and (b) to provide suitable candidates for promotion through successive appointment to selected positions in different departments.

A study of training policies and practices made in 1939 by the National Industrial Conference Board indicated that greater attention was being directed toward training of supervisors, clerical, sales, and operating employees than to executive training in most companies. However, a survey of training programs in six selected companies of national importance revealed the fact that in-service training of executives was receiving attention in all of the companies. The amount of time devoted to such training varied from meetings one hour in length held each month, to a three-hour weekly conference. Topics covered in such meetings included the following:

1. Current topics relating to company activities.
2. Company activities in relation to administration and suggestions arising out of meetings.
3. Principles and methods of supervision.
4. Qualities necessary for job performance.
5. Personnel and production problems in various company departments.
6. The work of each executive in relation to the work of the organization, discussed from the viewpoint of job objective, job relationship, job standards, job performance, training need, training sources, and training schedule.
7. Elements of foreman training.²

The companies reporting indicated that topics varied from year to year. Participants ranged from top executives to foremen; groups varied in size from ten to three hundred and seventy-five.

²"Training Solutions of Company Problems," *Studies in Personnel Policy* No. 15, National Industrial Conference Board, 1939.

Leadership reported included: (1) president and other executives; (2) president and department heads in turn; (3) line supervisors and training staff; (4) trained company conference leaders, company experts in various fields, representatives of state boards of vocational education; (5) general manager; (6) plant manager and training staff. Methods used were variously described as: (1) talks; (2) round-table discussion; (3) discussion and study of institute materials; (4) conferences; (5) round-table conferences and individual interviews; (6) individual reading and conferences.

TRAINING PROGRAMS WILL VARY WITH CONDITIONS

The sources referred to above indicate that the methods of conducting executive training vary greatly from company to company. It is quite logical that such should be the case. In some companies executive training may well be an individual matter carried on through person-to-person contact between the officer in charge and the executive candidate. In large companies some of the work of executive training can most profitably be done in groups. However, executive development is individual and executive growth is more a responsibility of the pupil than the teacher; there are limits to the usefulness of group work in executive training. Certain preparatory steps can be done efficiently in groups, but the actual acquiring of skill in making decisions and the enhancement of capacity to assume responsibility comes from making decisions for which the individual assumes responsibility, and this cannot be learned in the classroom.

If several college graduates are selected to start in executive training at the same time, initial development may be carried through in group instruction, and periodic group meetings may be used to supplement other training procedures. The men may then be put at work in different jobs throughout the plant. Some companies follow a regular schedule of transfer until new men have completed a probationary period. Usually executives in train-

ing are assigned to more or less routine jobs long before they are ready to assume responsibilities in even the most minor executive position. In order to maintain morale, men in training for executive positions should be made to win the right to authority by making good on some other job. If properly selected and placed, they can demonstrate to the satisfaction of their fellow workmen their right to promotion. They should be required to do so because premature promotion to authority antagonizes older employees against young executives and prevents the achievement of success which otherwise might be attained. Some college graduates expect to be placed immediately in positions of responsibility; they do not realize that such a procedure would create prejudice against them.

The most vital part of an executive training program is the gradual assignment of minor responsibilities. Forcing an inexperienced man to solve management problems involving difficult decisions prematurely often results in mistakes which destroy self-confidence. Gradual assignment of tasks which may be dealt with successfully brings about an increase of interest, effort, and confidence with which to tackle the next and more difficult task.

TRAINING THROUGH PROGRESSIVE ASSIGNMENT OF RESPONSIBILITIES

An effective program of executive development can be provided through service in a series of carefully selected assignments. A study of company organization should be made in order to determine the order of successive positions or jobs to which assignment is to be made. The order of assignment need not be the same for each man, because the ultimate responsibilities may vary. Furthermore, preparation and past experience will vary from candidate to candidate. It is more desirable to provide for individual adjustments than to set up a hard and fast schedule of assignments.

The practices found in companies investigated in the previously reported study of the Graduate School of Business of

Stanford University provide the best pattern that can be reported at the moment. The following practices are indicated in the report:

1. A number of the companies follow the progress of their promotable material closely, and when, through periodic appraisal, they feel that a promising man has realized the full measure of training and experience from his present assignment, they try to find a suitable promotion or arrange a lateral exchange (swap) of jobs. In either event the objective is to widen the individual's experience and provide an opportunity for his continued growth. In making appointments, such companies frequently try to make as many logical shifts of key prospects as practicable in order to multiply the number of opportunities for further development.

2. Many concerns recognize the special training value of work in certain jobs and departments which afford familiarity with a wide circle of activities, such as organization work, industrial engineering, cost control, personnel activities, and the various "assistant-to" jobs. Full advantage is taken of the opportunity to rotate promising men through these departments in connection with their long-term training. In the same way, service in a subsidiary company may afford familiarity on a smaller, simpler scale, with most of the problems of the parent company.

3. In making any appointment, from the lowest to the highest, one large company considers not so much who can most quickly fill a particular job (usually the "next-in-line"), but who will profit the most through the experience and training which the opportunity affords, and so be of greatest ultimate value to the company. To this end, it considers all individuals throughout the department at the level next below the vacancy and selects the man who, in its judgment, would get most out of the assignment. In the case of the more important positions, this consideration extends to qualified men throughout the company. It is assumed that within a few months, an able man, with the help of his associates, can learn to handle the work. No difficulty is experienced through disappointment of the "next-in-line" or "heir apparent," as all key men know the system and are hopeful of appointment not only to the one position directly ahead but to any of the many positions on the next higher level. The result of this practice is

that executives have a remarkably comprehensive knowledge of the operations and of the key personnel throughout the company.³

OBJECTIVES OF EXECUTIVE TRAINING

Executive training is aimed in two directions. Through such training it is expected that holders of executive positions will be made more efficient in the discharge of their immediate responsibilities and that they will acquire knowledge and develop abilities which will fit them for positions of greater responsibility. The personal characteristics which must be developed have been pointed out in Chapter VIII. Special requirements, knowledge, and procedures for present and future executive positions will differ from company to company and can only be determined through job analysis.

Most companies now use job analysis procedures for determining the needs and requirements for selection and training on routine occupations. Too often, however, executive positions are not subjected to the same searching study. It is probable that executive positions appear to be too complex to be subject to detailed analysis. While complexity of duties and responsibilities makes analysis of executive positions difficult, it should not be assumed that job analysis of such positions is impossible. Certainly the main responsibilities of such positions will yield to analytic study.

Numerous procedures for job analysis are in use. Most of these require modification when applied to executive positions.⁴

³Holden, Fish, and Smith, *op. cit.*, pp. 116-117.

Other approaches to the executive training problem are reported in the following sources: Schell, E. H. "Education and Training for Personnel Suitable for High Administrative Positions," *Taylor Society Bulletin*, September, 1935, pp. 197-199.

"Training Plans for Junior Executives," Metropolitan Life Insurance Company of New York, 1929.

Langley, R. W., and Edwards, J. R. "Training and Selection of Workers," *Society for the Advancement of Management Journal*, March, 1936, p 6 ff.

Turner, Glen C. "Executive Training," *Advanced Management*, Vol. IV, No. 4, July, 1939, pp. 87-93.

⁴For suggestions on job analysis procedures see Bingham, W. V. and Freyd, M. *Procedures in Employment Psychology*. McGraw-Hill, 1926.

Meine, F. J. "Job Analysis for Employment Purposes," *Annals of the American Academy of Political and Social Science*, Vol. 110, 1923, pp. 26-27.

Suggestions for developing an outline of executive functions can be obtained through study of material contained in Chapter II.

The executive training program may serve purposes other than individual development. Executive training may become an administrative tool. This point is emphasized in the Conference Board investigation previously mentioned. "Executive and supervisory training programs today are designated not only as channels for instruction in the detail of supervisory technique, but also as permanent media for the continuous interchange of ideas. That is essential to creative co-operative action. Training procedures for executives and supervisors have outgrown their purely instructional function and have become the management method for the control and direction of effective organization."⁵

This point is emphasized more specifically in a recent book on personnel management, as follows: "Courses seek to give potential executives a broad perspective in viewing the purposes and functions of the organization. They make clear the functions and responsibilities of individuals, divisions, departments, and executives as a whole. They seek to improve interrelationships between such divisions by providing an over-all picture and thus encouraging co-operation. They lay the basis for the uniform interpretation of managerial policies in all divisions. They seek, of course, to improve performance of individual executive functions."⁶

MEETING THE NEED FOR EXECUTIVE TRAINING

As previously noted it is extremely difficult to obtain accurate evidence on the extent to which the need for executive training is being met. A prominent business publication made a survey of one hundred and fourteen leading business firms in all branches of industry in 1935. The survey indicated that ninety percent of the one hundred fourteen companies involved were sponsoring executive training programs of one kind or another. Included were

⁵*op. cit.* *Studies in Personnel Policy* No. 15.

⁶Yoder, Dale. *Personnel Management and Industrial Relations*. Prentice-Hall, 1942. p. 240.

programs for both new recruits and men in service. About sixty percent of the programs were being conducted for the purpose of promoting development of recently added college graduates.⁷

Expert opinion holds that executive training programs are essential for the success of present-day business organization. On this point a Conference Board report includes the following statement:

During recent years there has been an increased recognition of the fact that training is not a matter of choice. All organizations, whether or not they choose to, train all the members of their personnel every day. Some train by absorption and some by intention, but all of them expose their employees to situations in which they learn. If such development is not directed, the individual absorbs both the true and the false in regard to all phases of the business. Industry has come to see that the creation of a formal, planned program of development is not the introduction of training in the organization, but rather a method of eliminating bad training that already existed.

As ownership of a business and control of a business have become vested in two different groups of people, industry has had to become self-perpetuating and produce its top management from within itself. The expansion of companies has created positions that involved enormous responsibility. It was natural that the feeling should grow that the development of such men could not be left to chance. In the final analysis the creation of an effective leader by training through absorption is, at best, a "happy accident." It will be nothing short of suicidal to depend for the future leadership of American industry on the possible occurrence of a series of "happy accidents." New leaders must be produced by intelligent, effectively planned programs of personnel development.⁸

NUMBER OF PERSONS REQUIRING EXECUTIVE TRAINING

With a growing recognition of the importance of the executive in society, it seems reasonable to suppose that an increasingly larger number of company officials will take an active personal interest in the problem of executive training. Increased efficiency

⁷Yoder, *op. cit.*, p. 240.

⁸*op. cit.*, *Studies in Personnel Policy* No. 15, p. 70.

on the executive level will produce large returns; therefore, it is evident that those companies which fail to introduce more effective methods of selection and training of executives will find that competing firms having satisfactory executive training programs will enjoy a distinct advantage. The problem really is not one of whether executive training should be offered, but one of determining the comprehensiveness of the program insofar as materials covered and number of employees included are concerned.

It is difficult to provide a clear statement of the number of persons discharging executive responsibilities in a given firm. One analysis suggests that there are seven levels of responsibility subdivided as shown in Table 13. The data in the table indicates that a small number of persons have major responsibility for policies and decisions. However, about twelve percent of the personnel of the company involved have major or minor executive responsibilities. Tentatively it may be concluded that the upper ten to fifteen percent of personnel in a given company should receive some form of executive training.

TABLE 13⁹

Level	Typical Position	Number of persons on this level	Each of whom supervises directly	Total supervised directly by this level	Total down to and including this level
1	President	1	5	5	1
2	Vice-president	5	5	25	6
3	Junior officer	25	5	125	31
4	Department head	125	5	625	156
5	Division head	625	5	3,125	781
6	Section head	3,125	10	31,250	3,906
7	Clerks and workmen	31,250	None	None	35,156

EXECUTIVE TRAINING FOR FOREMEN

The importance of the position of foremen has been seriously under-estimated in many companies. The foreman is a key man

⁹This tabulation was prepared by Henry E. and M.C.H. Niles, and first appeared in the magazine, *Personnel*, August, 1938. It is discussed on page 27 of Heyel, Carl, *Human Relations Manual For Executives*. McGraw-Hill, 1939.

inasmuch as the interpretation of company policy to the rank and file of workers becomes his responsibility. This contention is denied by certain business leaders, but the fact still remains that the majority of workers look to the foreman as the representative of the firm for which they are working.

The modern viewpoint on executive responsibilities of the foreman is ably presented by the National Industrial Conference Board.

The difference between an executive and a foreman is coming to be more of a question of the extent and amount of responsibility than of the kind of responsibility. Each executive and foreman, to the extent that these factors are related to his work, is expected to be familiar with the organization, the operating policies, the personnel policies, the production process, the distribution system, the clerical routine, the quality of the product, the costs of materials, machines, and operation. The growing similarity in the kind of responsibility naturally leads to a need for a closer co-ordination of the whole management group so that there may be uniformity of interpretation of clearly understood policies. The forces which produced the similarity of responsibilities not only make it possible to use the same approach in training executives and foremen, but make it almost essential. The result has been an increase in the number of programs which are designed both to co-ordinate the thinking of all levels of supervision, and to serve as a medium for a continuous flow of information.

At the same time there has been a change in the attitude of industry as to the most effective supervisory techniques. It used to be considered enough to lay down orders and issue regulations. Now, in the new situation, it is believed to be more constructive and productive to explain clearly the reason behind orders and the conditions that create policies. Clear explanation of organization, process, and policy has reaped its dividends both in creative suggestions and in the type of organizational harmony that manufactures better products in a shorter period of time. The money value of "the discipline of consent" and the productive results of "consultative supervision" have proved that the most effective organizational approach for this day and age is one in which bosses are leaders, not drivers, that it is one in which action is brought about less by telling orders than by selling ideas.

This trend of thought has made itself felt not only in the foreman-employee relationship, but throughout the whole supervisory line of authority. Leaders find that more effective results are produced when decisions are arrived at through consultation with those concerned in the application of plans and policies. The quality of the new type of supervisor and the attitude of the new executive create a relationship between the various levels of the supervisory organization never possible before. Management is becoming a co-ordinated unit in which the difference in individual training needs is one of extent rather than one of kind.¹⁰

The program of instruction relating to executive problems which is provided for foremen in one company will differ from that found in other companies, because no two industrial enterprises are exactly alike. It should also differ from year to year, because the same people will, to a great extent, be included in the training group for a period of years. The following topics covered in a leader-group program carried on by Eastman Kodak Company, and participated in by employees ranging from top executives to foremen, is illustrative.

1. The supervisor's place in the organization.
2. The supervisor's responsibility for developing and maintaining an effective working force.
3. The suggestion system.
4. Job training.
5. Safety.
6. The supervisor's responsibility in wage and salary administration.
7. Cost control.
8. Cost accounting.
9. Control of cost of materials.
10. Control of direct labor costs.
11. Control of indirect labor costs.
12. Maintenance costs.
13. Utility service cost.
14. Control of miscellaneous departmental expenses.
15. Quality control.
16. Company organization for quality control.

¹⁰*op. cit.*, *Studies in Personnel Policy* No. 15, pp. 70-72.

17. Departmental control of quality.
18. Planning and scheduling.
19. Current administrative problems.
20. New company policies.¹¹

Recently the National Association of Manufacturers has interested itself in the problem of up-grading foremen through training. Following is an outline of topics suggested by that organization for inclusion in a comprehensive program of education for foremen. An examination of the topics indicates that the N.A.M. recognizes the executive importance of foremanship.

A. Particular consideration should be given to the importance of having management take upon itself a two-fold responsibility, namely—

1. To teach its foremen those factors essential to the most efficient performance of their individual production jobs, and
2. To impart such education and disseminate such additional information as will enable them properly to fulfill their duties as management's representatives both in their supervisory capacity as well as the equally vital one of building and maintaining sound employment relations within their group, division, or department.

B. Foreman training and education within the plant, although designed to meet the peculiar conditions and problems individual to that company, might follow the broad fundamental avenues enumerated below.

1. Instruction and training to increase the foreman's efficiency in his own production spot. This involves detailed instruction in such fields as:
 - a. the best means of accomplishing his duties and performing his work;
 - b. methods of eliminating waste and achieving the greatest use of the man-power and facilities under his direction;
 - c. methods of reducing accidents and safety hazards;
 - d. selection, placement, and adjustment of employees; etc.

¹¹*op. cit.*, *Studies in Personnel Policy* No. 15. Topics covered in typical supervisory programs in five other companies are also reported in this publication.

EXECUTIVE ABILITY

2. Administrative education to impart to foremen a general knowledge of company policies regarding:
 - a. its business operation and problems;
 - b. customer relations;
 - c. quality of product;
 - d. working conditions;
 - e. business outlook of the company;
 - f. local community relations.
3. Background information regarding the general problems affecting all business and the individual company's particular business, including such factors as:
 - a. tax problems affecting the company and the country as a whole;
 - b. national expenditures;
 - c. distribution of national income;
 - d. existing and proposed legislation;
 - e. simplified business economics both in theory and practice to convey to foremen a realistic picture of how the business world functions and how the individual company functions in relation to the business world.
4. Executive information that will enable foremen to learn the fundamentals of:
 - a. how to estimate their department budgets and production schedules;
 - b. wage incentive payment plans;
 - c. job analysis and employee merit rating;
 - d. the structure of costs;
 - e. care of equipment;
 - f. inspection and maintenance;
 - g. satisfactory quality and quantity.
5. Education in the field of employment relations so that specific policies and regulations of the company regarding its employees and their work in the company may be thoroughly understood by foremen and, in turn, properly and soundly interpreted by them in their relations with the workers under their supervision. This education will include:
 - a. a study of the written presentation of the company's policies and regulations;

- b. thorough grounding in the importance of a harmonious working relationship with the rank and file employees;
- c. emphasis on fairness in handling men and in problems that may arise;
- d. the factors that enter into the adjustment of an employee to his job, his fellow workers, and top management;
- e. the necessity for explaining any changes that may occur so that such changes meet with the full co-operation of the workers;
- f. the building and maintenance of a spirit of loyalty and co-operation in the working group;
- g. maintaining discipline.¹²

METHODS OF INSTRUCTION IN EXECUTIVE TRAINING

Executive training is a form of adult education and, therefore, is a never-ending, continuous process. The competent executive is one who retains the mental elasticity of youth toward new ideas and a capacity for continuing mental growth. Since executive ability is a balanced ability, broad intellectual training tends to develop it, but that training alone gives no assurance of ultimate accomplishment of the objectives of executive training. Specific subject matter must be selected, and the nature of it should be determined to a large extent as a result of job analysis. However, since the executive training program is a continuing one, once the program is underway new material will be suggested by those participating. There is never a dearth of topics for executive training; the chief problem becomes one of selecting the material most pertinent to immediate needs.

All of the major methods of instruction which are found useful elsewhere have been used in connection with executive training. These methods may be classified under four headings: laboratory or project method (job participation), lectures, textbooks and reference assignments, and group discussions. The laboratory or project or job participation methods are extremely

¹²*Labor Relations Bulletin*, National Association of Manufacturers, No. 35, January, 1941, pp. 16-17.

important in executive development. In training, theory must be vitalized if it is to be practiced. This dictum is equally as important in training executives as it is in training operators for a machine. The function of the teacher or training supervisor in the participation method is that of setting up the conditions which the person being trained must undergo in order to insure that the results obtained are the desired ones. Experience alone is not sufficient; the right kind of experience must be provided.

The lecture method does not command the respect in education that was formerly given it, but it is frequently easier to present certain types of material through lectures than in any other form. The lecture is a useful and valuable method for preparing the learner for other types of instruction. In inspiration and motivation value the lecture is frequently superior to individual instruction. The lecture also has the advantage of bringing the attention of a group of learners to a common focus, thus preventing loss of time that might result from unoriented study. When used as a part of the educational plan and directed toward those ends which it can best serve, the lecture becomes an important and respectable teaching technique.

Books as instruments of education have a long history. At times they have been slavishly followed, and education has often been thought of exclusively in terms of book learning. At other times and in other quarters, frequently in industry, books have been heavily discounted, and their use has been frowned upon as being impractical and theoretical. The friends of books have been guilty of over-emphasizing the importance of the printed word, but practical minded industrialists have often under-estimated its value. For the person who has had enough contact with the actual problems involved, or who has been prepared by lectures and experience to make use of books, their use often is the most economical means of extending knowledge and providing new and enriched meanings. When the student has finished reading a book, he has not necessarily learned the material presented in its

pages, but he frequently has learned enough about the information to put it into practice and thus make it serve his needs.

Lectures and books are short-cuts to learning if properly used and if accompanied by adequate preparation and practice. Lectures and books aid in the learning of certain types of information that is not readily available in any other form, thereby vastly increasing the range of knowledge to which the learner can be exposed. However, lectures and books are like all other instruments of learning in that too extensive use brings diminishing utility. The percentage of time devoted to reading assignments in contrast to laboratory or job participation experience will vary according to the individual, the job, and the subject matter to be covered. On the executive instruction level most firms not only require a considerable amount of text and reference assignment reading, but potential executives in training are frequently required to submit themselves to examinations on material read.

The group discussion method is probably the most widely used procedure in executive training. It can be highly effective or it may become diffuse, discursive, and somewhat pointless. The general use of the discussion method in industry warrants separate treatment.

CONFERENCE METHOD IN EXECUTIVE TRAINING

The conference or group discussion method is as old as the human race, but in its modern form it is one of the newer techniques in education. Enthusiastic advocates of the conference method have, in some cases, seemed to believe it would take the place of all other methods, and that its use would effectively develop ability where other methods had failed. Naturally this is not true, and difficulties resulting from improper use of the discussion method have led some critical observers to condemn the method completely. Such condemnation is equally unfair. Many who have tried to use the discussion method have failed because they have not thoroughly understood it and, confusing the pro-

cedure with argument, debate, forum, or talk fest, have condemned it without fair trial. Discussion should properly follow or be correlated with experience, lectures, and reading; some type of background is necessary to provide the group with information or knowledge which they are competent to discuss. To successfully use the conference method the group applying it must have at least a general idea of the true nature of effective group discussion. Some of the fundamental principles which apply to the conference method are presented in the following outline:

1. The group should be small, six to fifteen, with ten or twelve estimated as the ideal number. If too many persons are present, all cannot participate. On the other hand, too few members in a discussion group fails to provide the breadth of experience and points of view needed to provide a thorough-going examination of the subject.

2. Open-mindedness is a prime requisite if true group thinking is to take place. Many attempts to promote constructive group thinking fail because the members of the group have pre-conceived notions and will not listen to anything to the contrary. Under such conditions group discussion becomes debate. The goal of group discussion is to learn from others, to analyze the various points of view, and to integrate the conflicts of opinion into new and constructive thinking by the group. A successful conference is one in which every member participates; the results of member participation are more than the sum of the ideas brought forth, for true discussion stimulates the development of new concepts. Conclusions reached as a result of conference discussions are more effective if every member feels he has contributed to the final decision. This is not true where an argument or debate results in compromise or is concluded by the imposition of an opinion on a group by the majority or by a dominant leader.

3. Common interest in the problem under discussion is essential if the conference is to be successful. This assumes that all

participants have the benefit of experience or knowledge which warrants common interest and would bar those who wish to participate simply because of idle curiosity. Unless there is a vital interest common to the group no genuine progress can be expected.

4. Variety of experience with the problem is essential. An industrial conference group which is composed entirely of men with experience relating to one aspect of the problem can hardly be expected to reach as intelligent a decision as though the membership represented all angles of the problem. Sometimes it is difficult to handle a mixed group, and usually it should not be tried in initial conferences. Mixed-opinion conferences become possible only after various groups have had experience with the conference method. In a mixed-opinion group subordinates frequently will not talk freely if top management is present unless the way is paved by careful preparation. Homogeneity of membership is helpful when conference groups are starting the discussion of a problem. As the discussion progresses the leader can suggest that the group invite other participants to present contrary or varying points of view. Progressive addition of persons to the initial group may be continued until all interests are represented.

5. Leadership is of utmost importance; a group inexperienced in the conference method is not likely to progress far without a competent leader. The conference leader should familiarize himself with group discussion methods through reading and prior participation as a group member. The leader should know enough about the subject to follow the discussion intelligently, but reputation as an authority on the subject is often a handicap. The leader should realize that he is not present to tell others the answer to the problem; if he knows too much about it, he often finds it difficult to refrain from making statements which choke off discussion. Ideally the leader should know more than the group but should be willing to learn from and with the group. The leader should use his knowledge of the subject to keep the dis-

cussion centered around pertinent points and should ask provocative questions when they are needed to bring out details that have bearing on the ultimate decision. The leader's function is to stimulate, direct, integrate, and summarize discussion. A Socratic question is often invaluable in breaking down early prejudices and getting discussion started.

It often taxes the skill of the leader to keep the group on the subject. Some leaders err in attempting to hold the discussion too closely in check. This kills the gradually developing process of thinking which is taking place in the minds of the more timid members. A reasonable amount of control must be exercised, however, if progress is to be made.

FIVE FACTORS IN TRAINING

In general it may be said that there are five essential factors in any training program. The following principles may be used as a guide in setting up training work for executives as well as for other employees:

1. Select candidates for training on the basis of ability. No program for training men can succeed which underestimates or overreaches the ability of persons being trained. In school work, it has been found necessary to classify pupils on the basis of ability and to adapt the training program to the various levels of ability found. In industry such a procedure is not necessary since selection of persons of desired abilities is possible. Proper selection of persons to be trained eliminates friction and disappointment as by-products of training.

2. Analyze and organize material to be taught. The significance of job analysis in education has been mentioned. Organization of teaching material is equally important. An analysis is a logical ordering of facts; organization of teaching material, however, should be psychological. While there are several elements to be considered in making a psychological arrangement of subject matter, a simple generalization to be followed will answer our

purposes. This is—try to see the subject matter from the point of view of the learner; start with material with which the learner is familiar and progress from the familiar to unfamiliar by steps which are within the limits of his capacity.

3. Adapt materials to suit a variety of methods. As has been indicated elsewhere, there is no best method of instruction. All methods have advantages and weaknesses. Some methods suit one type of material, while other methods suit other types. It is safe, however, to say that the greater the variety of methods used in any training program, the more satisfactory will be the result. This principle is especially true in its application to executive training.

4. Motivate instruction. Instruction must be motivated to be highly efficient. While it may appear that a group of persons in training should provide the necessary impetus to promote learning progress, essential gains will appear as a result of judicious motivation of work.

Both incentive and goal are essential to motivation. A person who is learning does best when he knows where he is heading and why. Knowing where he is heading is the goal. Knowing or feeling of why he is going is incentive. Incentive may be intellectual or emotional. Goals and intellectual incentives are easy to supply. Emotional incentives are not so obvious and, therefore, often not properly aroused. Liking to do a thing, satisfaction in attainment, are emotional incentives growing out of the learner's ability and his progress in learning. Personal contacts between learner and teacher provide either emotional incentives or deterrents. Recent experiments have shown that praise offered by the instructor is an incentive; reproof in the initial stages of learning is an incentive which, when mixed with praise, continues to be an incentive, but when used alone becomes a deterrent.

5. Measure results. The corollary to job analysis and establishment of goals or objectives is measurement to determine when these objectives have been attained. New type objective examina-

tions are being widely used in educational work to measure results. Since success on the job is the measure of progress most often used in industry, examinations are only to be used as teaching aids. The use of self-administering examinations and check lists of questions or problems by the student as a means of self-testing should be encouraged.

ENCOURAGE SELF-DEVELOPMENT

Men who are, or who hope to become, executives should be capable of self-directed study. Education is never a completed process for the man who wishes to keep growing with his job. Self-directed study is likely to be costly in time, because the average person does not always know where to look for the best information. Book titles are often misleading, and the reader frequently has no way of separating the wheat from the chaff except at considerable expense and loss of time. Librarians can often be of great assistance, although their judgment of books in highly technical fields is often based on inadequate knowledge. Larger libraries usually provide the services of trained specialists whose counsel will guide the reader to the most recent and authoritative books in his field. College and university teachers are usually well acquainted with meritorious books and magazine articles in their respective fields of specialization.

Since job analysis is considered to be a necessary preliminary step in any organized arrangement of education for industry, a valuable contribution to executive education would be that of having each executive analyze his own job. Such analyses can be made extremely useful as topics of discussion in group-conference meetings.

SELF-ANALYSIS AIDS DEVELOPMENT

Various forms of self-rating are suggested in this book. Many others can be developed and placed at the disposal of students in executive training courses. However, self-rating, self-testing, and self-directed reading are worthwhile activities when engaged in

by men already more or less permanently assigned to executive positions. The following appraisal of executive ability, prepared and used by J. B. Deacon in the capacity of an official of the Tidewater Oil Company, is a good example of the type of material which can be developed and which should prove to be valuable if conscientiously applied.

If I were an executive endeavoring to appraise and strengthen my organization, I believe that I should begin with myself. I would ask myself such questions as these:

1. Of what precisely do my responsibilities consist? Am I certain that my own conception of my responsibilities is identical with the conception of the executive to whom I report?
2. Do I find my time unduly occupied with the details of management? In conference? In paper work?
3. Do I try to plan my work—a year ahead, a month ahead, a week ahead, a day ahead?
4. Do my plans remain merely plans, or am I able to carry them into execution without undue delay?
5. Does the control of the operation for which I am responsible actually center in me? Have I in hand at all times all essential information for directing the operation? On the other hand, are my records and reports more comprehensive and detailed than is necessary for control purposes?
6. Do I rely exclusively upon operating and accounting reports for information about my organization? Or do I keep in close, vital, personal touch with my staff? Do I know how to make a thorough inspection of my operating units? Does my disinclination to travel tempt me to neglect distant units?
7. Do I know how to express my policies and plans through my associates and subordinates; that is to say, do I know how to delegate responsibility? And do I sufficiently realize that the responsibility I delegate imposes upon me the duty of checking carefully as to the discharge of the delegated responsibility?
8. Do I give my associates and subordinates a sense of participation, of partnership in planning and conducting the operation? Do I give them an opportunity to develop judgment and initiative?
9. When matters come before me for decision, do I decide them with

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reasonable promptitude? On the other hand, do I tend to decide them so quickly that I do not give due consideration to all pertinent factors, and to the views of the interested parties?

10. What improvement in organization or methods, what economies have I effected during the past year? What have I in mind for the coming year?
11. Have I recently, or ever, closely analyzed, or caused to be analyzed, the duties making up each position in my unit of the organization? If not, can I assume that I really know whether my force is overburdened or underburdened?
12. What employees of mine have earned and received promotion during the last year? Can I name others who are likely to qualify for promotion during the year to come?
13. Are my key positions understudied?
14. Do I keep in touch with my industry, through trade publications, trade association meetings, and contacts with individuals outside of my own company?

Then I would address to my private—unofficial—self, these questions?

1. Am I a prey to anxiety, worry, fear—over my health, my position, the results of my work? Do I adequately realize the blighting effect of these emotions?
2. Do I from time to time withdraw myself from business concerns and, through reading, meditation, worship, play, social contacts, seek to replenish the sources of vision and power.¹⁸

UTILIZE SERVICES OF OUTSIDE AGENCIES

The industrial organization which depends entirely upon efforts of its own executives and personnel men in training employees, whether sales, research, executive, accounting, or operative, is shortsighted. Employees should be encouraged to utilize the facilities of outside agencies. Colleges, universities, and schools of business administration offer a wide variety of courses in psychology, economics, finance, and management which should prove helpful to executives—real and potential. It is frequently possible for employees to enroll in courses in late afternoon or

¹⁸Deacon, J. B., "An Appraisal of Executive Ability," *The Management Review*, June, 1930.

evening classes at neighboring universities. Where this is not possible an extension course can usually be made available through arrangements with universities or colleges. Correspondence courses of merit can sometimes be obtained where neither campus nor extension courses are available.

Various professional organizations publish materials that are useful in executive training. Some engage in field work and offer consultative services to industrial organizations. It is not possible to mention all of the reliable associations here, but a few of them are: National Industrial Conference Board, American Management Association, American Economics Association, American Psychological Association, American Association for the Advancement of Science, Institute for Government Research, National Occupations Conference, National Research Council, Russell Sage Foundation, Social Science Research Council, Society for Advancement of Management.

A few semi-private organizations, such as the following, are dependable: Psychological Corporation, Personnel Research Federation, Bureau of Personnel Administration, Industrial Relations Counsellors, Inc., International Industrial Relations Institute, Manufacturers Research Association, National Bureau of Economic Research, Policyholders' Service Bureau of Metropolitan Life Insurance Company, American Federation of Labor, Metal Trades Association, National Electrical Manufacturers Association, National Association of Manufacturers; bureaus of business research maintained by several urban universities, such as, Industrial Relations Section, Princeton University, Employment Stabilization Research Institute, University of Minnesota, Bureau of Industrial Relations, University of Michigan, Department of Industrial Research, University of Pennsylvania, Brookings Institution, Bureau of Business Research, University of Pittsburgh; and Institute of Human Relations, Yale University; and departments of psychology, economics, and business administration in larger universities.

Private consultants can, in some instances, render valuable assistance. For obvious reasons individuals or firms engaged in such work cannot be mentioned specifically in this book. The standing of such organizations can usually be determined by making inquiry of one of the associations designated above.

IMPROVEMENT OF EXECUTIVE TRAINING

Throughout this chapter emphasis has been placed on the need for improvement in executive training procedures. That such improvement is needed is indicated by comments contained in reports of various organizations concerned with better management. Looking to the future the National Industrial Conference Board makes the following recommendations for development of training programs.

1. A better adaptation of college courses to industrial needs.
2. A more intensive effort to discover training needs in order to have an intelligent basis for designing effective procedures.
3. The development of more objective methods of selecting men to be trained.
4. The concentration of more creative thinking on the problem of discovering efficient techniques and methods for evaluating results.
5. Above all, much more participation in training programs on the part of top management.¹⁴

¹⁴*op. cit.*, *Studies in Personnel Policy* No. 15, p. 77.

Hints to Prospective Executives

EACH YEAR MANY OF THE YOUNG MEN WHO ENTER MINOR POSITIONS in industry hope, and often sincerely believe, that they will be called upon within a few years to fill executive positions. The significance of responsibilities connected with executive positions has not been fully realized by those who are ambitious to fill such positions.

In foreign countries executive positions are looked upon as carrying high responsibility requiring long experience and training, consequently younger men find little opportunity to demonstrate their true worth. In America young men are given a greater opportunity, and, while this is fortunate, it often results in the placing of executive responsibility in the hands of persons who do not possess the seasoned judgment which comes from longer training and experience. The provision of opportunity for executive development of younger men is socially desirable; however, the dependence of society upon successful operation of business and industry makes it imperative that executive responsibilities be placed in the hands of persons capable of discharging them. The young man whose ambitions and opportunities lead him in the direction of executive tasks should engage in active self-development.

BASIC TALENT ESSENTIAL

Executive ability may be developed through carefully planned executive training programs or through intelligent self-direction;

however, ability cannot be developed where there is no inherent talent. Individuals differ in the intensity and extensity of native capacity. It is clear to any thoughtful person that tone discrimination is necessary to the development of musical skill and that color discrimination is necessary in the pictorial arts. Tone and color discrimination, therefore, may be looked upon as native traits necessary to the development of proficiency in the fields designated. While traits essential to executive success are not as clear-cut as tone and color discrimination used in the foregoing illustration, basic native abilities related to executive functioning do exist.

The first step in the development of any talent is the discovery of capacity. Unfortunately, ambition is not a safe guide to follow. Again using the illustration of music and art, many more persons attempt to develop talent in those fields than succeed. The ambition to be a musician or an artist is not sufficient, nor does the desire to be an executive guarantee the existence of abilities necessary to realize that ambition. There are guides, however, which the ambitious person can follow in the discovery of executive talent, or any other talent for that matter. Among these are (a) sustained interest, (b) detection through chance experience, (c) detection through success of training, whether self-directed or externally directed, and (d) determination by test.

SUSTAINED INTEREST AS A GUIDE

Interest normally passes through three phases. Interest of a sort arises out of newness or novelty; initial experiences are always interesting (but not necessarily pleasant). Such interest is not always lasting; as soon as the novelty (newness) of an experience declines, interest wanes. Where talent is lacking interest disappears rapidly or gives way to distress or annoyance. Where talent is present to a marked degree, interest persists. Sustained interest resulting from the exercise of ability is a general indication of aptitude for the activity. Unfortunately interest does not safely

guide us in the judgment of the degree of talent possessed, but loss of interest is a fairly good indication of lack of ability. The young man contemplating executive work should determine whether his interest in that type of work is deep and sincere or is merely a passing fancy; whether he is not enjoying the fascination growing out of contemplative curiosity or whether the alleged high salaries of executives or desire to dominate others are the real points of interest.

For a young man who is contemplating executive work as his ultimate goal, time spent in the office of an executive would assist materially in helping to check the nature and degree of his interest. The picture we have in fiction of the big businessman who reports to his office at ten, dictates a few letters, calls a conference at eleven, takes lunch from twelve-thirty to two, returns to his office to sign his letters, and leaves for the golf course at three will probably not appear to be so convincing after a few weeks in the office of a busy executive spent in tabulating the things done by such a man.

CHANCE EXPERIENCE AS A GUIDE

Everyday life provides many opportunities for the discovery of executive talent. Organization and management problems arise on the playground, among pupils in school, in church, and in club and lodge work—in fact in almost every place where groups of people meet together. In specialized social groups, executive talent is frequently, though not always, discovered by the group itself and is utilized to serve the purposes of the group. Not only do these groups give opportunity for the discovery of such talent, but they also provide an opportunity for the ambitious individual to gain limited executive experience. The chief danger in social group experience is the possibility that political executiveship will be discovered and developed more readily than management executiveship. The world has need for both—but not in the same field of endeavor.

The management of one's own life provides excellent opportunity for executive development. It is difficult to conceive of a person successfully directing and controlling others when he cannot direct and control himself. In the direction and control of appetites and emotions, every person has an excellent opportunity to show executive ability. Similarly a great many opportunities arise out of the management of personal finances, obtaining an education, obtaining employment, and securing promotions. A person may well judge his ability to manage the affairs of others by the success he has had in managing his own.

TRAINING AS A GUIDE

The responsiveness of an individual to training which has been set up for the purpose of developing a trait is a reasonably safe guide to the presence or absence of that trait. If a firm offers special courses for persons interested in managerial training, the young man with executive ambitions should avail himself of these opportunities. The success or failure of the training will provide an answer to the question of whether or not the ambitions are justified. Responsiveness to several types of training is a better guide to executive ability than is the expression of genius in a specialized or limited number of related fields. Executive ability is all-around ability, not extremely high aptitude along one particular line. The almost universal failure of men of specialized genius in executive tasks is an excellent confirmation of this supposition. Success in school subjects from the elementary school through college suggests executive possibilities. This success need not be much better than average, but it must cover a broad field of studies. Failure in the ordinary run of school subjects, unless due to unusual circumstances, is almost certainly an indication of lack of sufficient general intelligence to cope with executive problems.

Scholastic success alone is not a measure of executive talent. Diversity of ability is more clearly shown by persons who par-

ticipate in other school and life activities. Participation in sports, clubs, school publications, debating, and other extra-curricular activities are suggestive of executive ability when accompanied by scholastic standing of average or better. The young man who maintains a respectable scholastic standing, earns part or all of his school expenses, maintains an interest in several forms of student activity, takes part in one or more, and still finds time to meet responsibilities of social life throughout high school and college is almost certain to be a good risk for an executive position. To follow such a regimen is an excellent way to prepare for future executive tasks and responsibilities. To neglect any of these four aspects of educational life is to run a risk of omitting an essential element in the development of executive talent.

TESTS AS A GUIDE

Training and tryout methods of discovering talent are expensive and likely to extend over a long period of time. As a substitute for tryout methods, tests or reaction sampling devices have been developed by means of which the existence of talent can be discovered. Experimental applications of tests to persons of known ability have been described elsewhere in this book. Certain tests are recommended in Chapter VI; however, self-administration of tests and self-interpretation of so important a matter as vocational aptitude cannot be recommended. There are persons in most colleges and universities who can administer tests to students who are interested in learning about potential vocational possibilities. Where such service cannot be provided by college or university personnel, a professional psychologist may be consulted.¹

¹Many persons claiming the status of professional psychologist are so recognized only by themselves. At present there are no professional licensing agencies for consulting psychologists; however, there are professional associations. College or university officials can usually supply information about the professional status of anyone claiming professional preparation in psychology. Any psychological technique involving the application of professional judgment can only be as good as the ability of the person rendering the judgment.

INTELLIGENCE ALONE IS NOT ENOUGH

Elsewhere it has been suggested that intelligence or ability to learn increasingly more difficult material at comparatively more rapid rates is an important factor in the development of executive talent. Intelligence is one of the easiest of all qualities to measure by means of tests; therefore, to determine executive ability would be a simple matter if measures of this quality alone were a sufficient criterion of executive talent. Unfortunately the results of intelligence tests alone do not provide a sound basis for judging executive capacity. Other traits are involved. Tests have shown very clearly that insofar as the executive and the average employee are concerned there is a marked difference in favor of executives, yet in many large companies employing highly trained engineers, research experts, and other specialists it is probable that executives as a group would rank lower on the average in intelligence tests than would some of the above-mentioned specialized groups.

RATE YOURSELF ON EXECUTIVE TRAITS

One way to obtain a clue to the existence of traits is that of rating on clearly defined abilities. The procedures ordinarily used for this purpose are described in Chapter IV. Using the executive rating scale provided, rate yourself on the traits indicated. Place these ratings in an envelope, seal it, lay it away for two weeks, and do not try to remember the ratings which you made. At the end of two weeks rate yourself on the traits again without opening the first set of ratings. Lay this set of ratings away in a sealed envelope with the first set without comparing the two sets of ratings. At the end of another two weeks rate yourself again on the same traits. Now open the previous ratings and make comparisons.

Have you been consistent in your judgment of yourself? If not, you have failed as yet to develop, or else you do not possess the ability to develop, one of the important qualities of executives; namely, the ability to judge human characteristics. Make a

similar test of sensitiveness to human qualities by rating several acquaintances on the executive scale and lay the ratings away as before. Are you consistent in your judgment of others? If not, continue the experiment using other traits until you do become consistent in your judgment. In carrying out these experiments, play fair; do not try to remember previous ratings. Use the method as a means of discovery and development by forgetting between ratings what you did on the earlier attempts. Continue to practice rating until you have developed a knack for doing it by constantly examining and improving the basis on which you make your judgments.

HAVE OTHERS RATE YOU

Have five or more friends and business associates rate you on the executive scale without informing them that it is a list of executive traits. Have the ratings sent to you in such a manner that you will not know from whom any of the sets of ratings came. Be sure that those assisting you understand that you will not be able to identify any particular person's set of ratings; make clear that you want frank statements from them and that no offense will be taken—in other words, try to get an unbiased opinion from each person assisting you. If it does not seem feasible to have the ratings sent to you, have them sent to a disinterested party for tabulation. This technique has been used by a consulting organization which deals with personality improvement problems with considerable success. It can be made extremely effective if the results are used to plan a program of self-improvement.

Your raters will not always agree, so tabulate the ratings in such a way as to average them. If the average rating shows weakness in any of the traits, study your behavior to determine the source of the weakness and try to strengthen weak traits. It will be extremely helpful in developing a trait to observe it in others and imitate the particular forms of behavior which contribute to effectiveness of the trait. Discuss persons of your acquaintance

with the persons who rated you; if your raters can agree that certain individuals of your acquaintance display the desired trait in a high degree, their behavior can be used as a basis for comparison with yourself and as a model for emulation.

DEVELOPING TRAITS IS AN EDUCATIONAL PROCESS

In the final analysis the development of executive ability is a matter of acquiring skills, attitudes, and knowledge necessary for success. Certain principles of learning suggest the process by which the abilities are developed. One of these principles states that we learn by practice or repetition. This is easily deduced from everyday experience, but it is also easy to detect a hidden fallacy in the commonplace observation that "practice makes perfect." It is not practice that makes perfect, but the right kind of practice. Furthermore, practice must be motivated to be long continued or to be efficiently productive. The surest motivation in learning is the satisfaction gained from the learning experience itself. If self-improvement is a pleasant task, it will be effective; if self-improvement is bothersome and personally annoying, the results will be disappointing. Artificial motivation may be used, but quite frequently artificial motivation produces only mediocre results and leads to discontinuance of practice.

It should be clear that no amount of thinking about or wishing for a trait will develop it, although prior analysis and application of imagination may aid when opportunities for practice arise. If one wishes to overcome embarrassment when speaking to an audience, the best way to overcome the embarrassment is to speak in public at every opportunity. If there is a desire to develop the ability to deal tactfully with people, then the way to develop that ability is to practice it. Study the various traits suggested as being needed in executive work and try to create opportunities for their practice. If you can truthfully say after reading this chapter and observing things going on about you for a few weeks that there are no opportunities for practicing executive traits, then you

may rest assured that you are not temperamentally suited for executive work. If you were, you would see the opportunities and grasp them.

Perhaps your gifts lie in other fields. Perhaps you should look elsewhere to satisfy your life-work ambition. Only a small number of human beings can paint pictures that are good, can play a musical instrument well enough to be recognized as a virtuoso, or can manage a business or segment of industry successfully, and the people who can do these things are distinctly different in personality characteristics. Ability to paint pictures, ability to play a musical instrument, ability to manage, can be developed, but not to any great degree in all people. Make an honest evaluation of your capacity to succeed in any given vocation before you attempt to develop competence in that line. You should not be disheartened by the discovery that there are some things which you cannot do well, for there are other things that you should be able to do successfully and enjoy doing them.

LEARN BY SOLVING PROBLEMS

The executive must solve problems by making decisions and formulating plans to make them effective. It is not possible for a prospective executive to deal directly with executive problems, but he can consider problems calling for executive solution and practice solving them in his own mind or on paper. Many of the books listed in footnotes in Chapter II contain problems which can be used for practice. A particularly helpful book of problems in the human relations aspect of executive functioning is *Problems in Labor Relation*, by Herman Feldman, Professor of Industrial Relations, Dartmouth College (Macmillan, 1937). The book contains seventy basic problems in industrial relations, and each problem is illustrated by several actual cases. A study of the cases cited, supplemented by analysis, investigation, and research, if sincerely carried on, will provide practice in executive handling of employee relations. However, superficial reading of the cases presented in

this book or others will not provide satisfactory practice. The problems must be treated as though they were real, and solutions must be made as though they were actually to be put into practice. Working out solutions to such problems, writing out the solution in detail, and then submitting the solution for criticism to a person who has had executive experience, closely approximates direct practice.

Principles of economy of effort dictate that a method of attack should be developed for the solution of executive problems. Unfortunately, college training does not ordinarily develop the ability to make a systematic step-by-step solution to complex problems involving several factors; college training appears to be more effective in developing the ability to solve highly specialized problems with a limited number of variables. A method of analysis which has considerable merit is suggested in the book by Feldman mentioned in the preceding paragraph.² Careful study of the method, and practice in putting it into application are recommended.

Another extremely helpful book for the prospective executive is *Psychology for Executives* by Elliott Dunlap Smith, Professor of Industrial Relations, Yale University (Harper, 1934). In addition to numerous suggestions for self-development, the book contains a valuable analysis of the psychology of dealing with others in industrial situations. The appendix of the book contains eight check lists for executives which the prospective executive will find invaluable, especially those on "Managing a Major Change," "Making Continuous Progress," "Maintaining Disciplined Control," and "Developing Organization."³

Many inspirational and self-help books for the development of mental capacities and personality traits have been published. In fact many new books on personality development appear in print yearly. Usually these are superficial, but occasionally they

²Feldman, Herman. *Problems in Labor Relations*. Macmillan, 1937, pp. 319-333.

³Smith, Elliott D. *Psychology for Executives*. Harper, 1934. pp. 271-294.

contain helpful hints. In general they overemphasize the importance of the ability to ingratiate, and encourage the reader to believe that much of life should be devoted to efforts to win one's way into favor by unremitting efforts to please. Making a favorable impression on others is an important part of executive functioning, but this must be accompanied by a strong capacity to make sound judgments through the processes of reflective thinking.

There are many types of thinking. Most thinking is random, casual, and undirected; usually thinking is a form of free or partially controlled association. In a sense this is mental activity rather than thinking, but it should not be dismissed lightly for it is a pleasant means of occupying one's time and occasionally new combinations of thought occur which lead to important discoveries. Some thinking is contemplative and appreciative, in that attractive memories are reviewed, and interesting or beautiful objects are examined and studied. At other times thinking is purposive, in that it provides a coherent related story which often satisfies emotional or intellectual objectives. However, when thinking, directed toward the solution of a problem, is done to search out the meaning of a puzzling situation, or is used to arrive at a valid conclusion, it is distinguished by characteristics which are both analytic and synthetic, and is frequently referred to as being reflective thinking. The nature of reflective thinking has never been better described than by John Dewey, the famous proponent of the philosophy of education which holds that learning is accomplished by doing, in a book entitled *How We Think* (D. C. Heath, 1910). Careful study of that book is recommended to anyone who wishes to develop the ability to arrive at reasonably sound decisions. Methods of thinking may be further developed by the study of a volume entitled *Introduction to Reflective Thinking*, prepared by staff members of the Department of Philosophy of Columbia University (Houghton Mifflin, 1923).

Development of an objective point of view in thinking is extremely important. The classic works of Sir Francis Bacon,

Novum Organum and *The New Atlantis*, should be studied by every person who seeks guidance in scientific methods of analysis. The value of objectivity is aptly described by Bacon in these words: "The wit and mind of man if it worketh upon matter . . . worketh according to the stuff and is limited thereby; but if it worketh on itself, as the spider worketh his web, then it is endless, and brings forth indeed cobwebs of learning, admirable for the fineness of thread and work, but of no substance or profit."⁴

ONE MUST BE MORE THAN AN EXECUTIVE

Even a specialist in the narrowest sense is also a personality displaying many characteristics. Individual existence cannot be narrowed to one specialized type of activity. Every individual must associate with other people, has responsibilities as a citizen, takes part in religious or other spiritual activities, is a member of some type of home and family group, fulfills certain leisure-time desires, is a consumer of economic goods, is an owner of some part of the world's wealth, and in many other ways gives expression to self. The executive personality is broader and more varied than the specialist personality, but the social personality is still broader in nature.

Numerous attempts have been made to categorize the traits necessary for success in competing with others. After considerable study, Dr. W. W. Charters offers the following common-sense statement of qualities which are rewarded in business. He states that one cannot compete successfully in the business world without them "though you have ability, brains, skill, and information."

⁴For further study of objective reasoning see Jevons, W. S. *Elementary Lessons in Logic*. Macmillan, 1914.

Russell, Bertram. *Scientific Method in Philosophy*. Open Court Publishing Company, 1912.

Poincare, H. *Science and Method*. Scribners, 1915.

Thomson, J. A. *The Outline of Science*. Putnam's, 1922.

Bryce, James. *Modern Democracies*. Macmillan, 1921.

Cardozo, Benjamin N. *The Nature of the Judicial Process*. Yale University Press, 1921.

Pearson, Karl. *The Grammar of Science*. A. & C. Black, London, 1911.

1. *Ambition*.—Have you the will to improve yourself? This means *real* will; not merely a vague, intermittent desire.

2. *Industriousness*.—Have you the ability to drive yourself *steadily*?

3. *Persistence* and *Patience*.—Look back over the various plans you have made during the past year; enumerate all you can remember and see how many of them you have actually put through.

4. *Dependability*.—Can you be relied upon to carry out plans assigned to you by other people?

5. *Forcefulness*.—Do you give people the impression that you are capable and self-controlled? Are you self-reliant?

6. *Effectiveness of Speech*.—Can you express your ideas clearly and *convincingly*? Do you speak with a “piping” voice, or have you studied how to place your voice so that you are not unpleasant to listen to?

7. *Self-confidence*.—What are the things you have done of which you have a right to be proud?

8. *Friendliness*.—Are you too critical in your judgment of other people?

9. *Adaptability*.—Do you find it easy to listen to what other people are saying? If you are hardly able to wait for a chance to air *your* opinion, you need to cultivate this trait.

10. *Tact*.—Can you work in harmony with other people? How often do you find yourself praising people for what they have done?

11. *Cheerfulness*.—Do you depress other people or are you a cheerful companion?

12. *Good Judgment*.—Examine yourself particularly as regards *initiative* and *resourcefulness*. How many suggestions have you made to your employer in the past six months? How many of these has he approved?

13. *Sensitiveness to Criticism*.—How do you take the criticisms, direct or implied, from employer, friends, and associates? If you brood over them, if the sting of criticism keeps you from seeing that it may be *useful* nevertheless, you may be *oversensitive*.

14. *Ability to Size Up People*.—Do you see only good in some people and only weaknesses in others? Are you observing enough to be able, after talking with a new acquaintance for 15 minutes, to specify how he impressed you as regards neatness of dress, effectiveness of speech, friendliness, tact, cheerfulness?

15. *Memory*.—Are you good at remembering names, faces, and personal incidents about the people you meet?

16. *Neatness*.—Are you painstaking in regard to your personal appearance?

17. *Health Habits*.—Ask yourself whether your *habits* are those that make for or against good health, and how they tell on your working ability and mental attitude day by day.

18. *Discrimination*.—Can you discriminate between more important and less important matters? Do you clog your daily routine with unnecessary work on comparatively unimportant details?

19. *Economy*.—Do you save time and effort by doing things in the right and easiest way without waste motion?

20. *Capacity to Delegate Work*.—This quality is especially important for those who are, or hope to become, executives. Executives often fall short in this trait because they lack *persistence* of a certain kind or because of *vanity* or *selfishness*.⁵

DEVELOP A SATISFYING PERSONAL PHILOSOPHY

No philosophy of life ever propounded has been wholly satisfactory to all men. Broad, general principles of personal philosophy are similar in many men because of the influence of the home, the nation, and religion. Personal habits are developed which implement the widely accepted tenets of government, family life, and religion. However, beyond these conventionally accepted principles there are many phases of life about which every individual must formulate his own points of view. For personal adjustment and freedom from restraint the personal points of view which are developed must be satisfying to the individual.⁶

Naturally personal philosophies should, as far as possible, coincide with generally accepted principles of conduct. It is the personal values which are attached to different standards that are

⁵Charters, W. W. Presented in an article which appeared in the *American Magazine* in 1924.

⁶The following books will be found helpful in directing the thought of readers on problems of personal philosophies:

Fadiman, Clifton, ed. *I Believe: Personal Philosophies of Certain American Men and Women of Our Time*. Simon & Schuster, 1939.

Lippman, Walter I. *A Preface to Morals*. Macmillan, 1929.

important. That individual variation in standards exists has been demonstrated by an experiment conducted by Walter B. Pitkin, in which he had five hundred people, typical of the upper ten percent of American intelligence, culture, and social training, rate the Ten Commandments in order of importance. Three hundred and forty-nine were able to assign a definite rating to each Commandment, while only 151 found themselves unable to express a judgment of relative importance. The average rating placed the Commandment against manslaughter first, and the admonition to keep the Sabbath holy last. The order of rated importance for all ten from the one rated most important to the one rated least important was Commandment 6, 5, 8, 9, 7, 1, 10, 2, 3, 4. Professor Pitkin concludes from an analysis of the rating that 68% of the group used are moral modernists, 12% are moral fundamentalists, and 20% are moral socialists.⁷

The individual point of view on personal morality must go beyond general principles. The acceptance of dogma removes the necessity for reflective thinking; hence those who aspire to lead others must devote thought to moral questions as well as other problems. The point of view of John Dewey is one worthy of favorable consideration:

Morals must be a growing science if it is to be a science at all, not merely because all truth has not yet been appropriated by the mind of man, but because life is a moving affair in which old moral truth ceases to apply . . . Principles exist as hypotheses with which to experiment. Human history is long. It is a long record of past experimentation in conduct, and there are cumulative verifications which give many principles a well earned prestige. Liking to disregard them is the height of foolishness, but social situations alter; and it is also foolish not to observe how old principles actually work under new conditions, and then to modify them so that they will be more effectual instruments in judging new cases. Many men are not aware of the harm done in legal matters by assuming the antecedent existence of fixed principles under which every new case must be brought. They recognize that this assumption really puts a premium on ideas developed under bygone

⁷Pitkin, Walter B. "Our Moral Anarchy: Disclosures Through Grading the Ten Commandments," *Century*, Vol. 112, No. 6, October, 1926, pp. 642-644.

conditions and their perpetuation in the present works iniquity. Yet the choice is not between throwing away rules and developing or sticking to them. The intelligent attitude is to adapt, expand, and alter them. The problem is one of continuous vital readaption.⁸

Many praiseworthy attempts have been made to set forth the nature of ethical conduct in business affairs. Difficulties arise when attempts are made to encourage adherence to the principles of conduct set forth. Much of the criticism of business management on the part of the general public arises out of the failure of businessmen to live up to codes formulated for their guidance. If it were possible for the newer recruits to executive positions to bring with them a more socially acceptable business philosophy than is generally found, the need for restrictive legislation would disappear. The young executive should seriously consider his responsibility in respect to standards of business conduct which have been flaunted by older leaders.

It will be interesting for the reader to consider the following statements of principles of business conduct formulated by the Chamber of Commerce of the United States in 1924, and give serious thought to two questions: (1) Why have many leaders in business and industry failed to live up to the standards set forth? and (2) Would a closer adherence to the principles set forth have prevented adverse criticism and restrictive legislation?

The function of business is to provide for the material needs of mankind, and to increase the wealth of the world and the value and happiness of life. In order to perform its function it must offer a sufficient opportunity for gain to compensate individuals who assume its risks, but the motives which lead individuals to engage in business are not to be confused with the function of business itself. When business enterprise is successfully carried on with constant and efficient endeavor to reduce the costs of production and distribution, to improve the quality of its products, and to give fair treatment to customers, capital, management, and labor, it renders public service of the highest value.

⁸Dewey, John. *Human Nature and Conduct*. Holt, 1922. pp. 239-240.

We believe the expression of principles drawn from these fundamental truths will furnish practical guides for the conduct of business as a whole and for each individual enterprise.

- I. *The Foundation* of business is confidence, which springs from integrity, fair dealing, efficient service, and mutual benefit.
- II. *The Reward* of business for service rendered is a fair profit plus a safe reserve, commensurate with risks involved and foresight exercised.
- III. *Equitable Consideration* is due in business alike to capital, management, employees, and the public.
- IV. *Knowledge*—thorough and specific—and unceasing study of the facts and forces affecting a business enterprise are essential to a lasting individual success and to efficient service to the public.
- V. *Permanency* and continuity of service are basic aims of business, that knowledge gained may be fully utilized, confidence established and efficiency increased.
- VI. *Obligations* to itself and society prompt business unceasingly to strive toward continuity of operation, bettering conditions of employment, and increasing the efficiency and opportunities of individual employees.
- VII. *Contracts* and undertakings, written or oral, are to be performed in letter and in spirit. Changed conditions do not justify their cancellation without mutual consent.
- VIII. *Representation* of goods and services should be truthfully made and scrupulously fulfilled.
- IX. *Waste* in any form—of capital, labor, services, materials or natural resources—is intolerable, and constant effort will be made toward its elimination.
- X. *Excesses* of every nature—inflation of credit, over-expansion, over-buying, over-stimulation of sales—which create artificial conditions and produce crises and depressions, are condemned.
- XI. *Unfair Competition*, embracing all acts characterized by bad faith, deception, fraud, or oppression, including commercial bribery, is wasteful, despicable, and a public wrong. Business will rely for its success on the excellence of its own service.
- XII. *Controversies* will, where possible, be adjusted by voluntary agreement or impartial arbitration.

- XIII. *Corporate Forms* do not absolve from or alter the moral obligations of individuals. Responsibilities will be as courageously and conscientiously discharged by those acting in representative capacities as when acting for themselves.
- XIV. *Lawful Co-operation* among businessmen and in useful business organizations in support of these principles of business conduct is commended.
- XV. *Business* should render restrictive legislation unnecessary through so conducting itself as to deserve and inspire public confidence.⁹

EMBRYO EXECUTIVES

The influence of early experience on the possibilities of success in any life work must be recognized. Since actual executive experience ordinarily comes after the person is well past his majority, and since the executive must attain his position by rising above the commonplace, the years of youth may contribute little in the way of experience that is formative in terms of executive ability. Yet there are boyhood and teen-age experiences which can be directive. Most of these experiences are valuable whether or not later aspirations lead in the direction of executive responsibilities. Parents, therefore, may well be urged to encourage types of activities and practices which have developmental value.

Early development of financial independence and money sense is one of the achievements which is of vital importance. Children can be encouraged to earn, and opportunity for earning should be provided even though it means undertaking tasks which are financed by parents—there are many ways of earning if both parents and children are imaginative. The amount earned is not so important as the fact of earning.

Management of personal finances becomes possible if children are given opportunity to earn or if the practice of providing chil-

⁹Heermance, E. L. *Codes of Ethics*. Free Press Printing Company, Burlington, Vermont, 1924. pp. 77-78.

See also Heermance, E. L. *The Ethics of Business*. Harpers, 1926.
Tausch, Carl F. *Professional and Business Ethics*. Holt, 1926.

dren with allowances is followed. The allowance should be adequate enough to make saving possible. With guidance children can be taught to save and invest. Earning and investing for a purpose is superior to saving and investing for thrift's sake. Establishing a fund to aid in defraying college expenses is an example of saving with a purpose.

Unusual ways of earning which involve elements of management may be found if effort is directed toward their discovery. The story of such an undertaking is reported in the magazine, *Advertising and Selling*. Two boys, aged 15 and 17, sons of a business executive, were encouraged to establish a firm for tabulating advertising lineage appearing in four hundred business publications. With their own savings, encouragement from their father, and advice and assistance from their mother they established the Brad-Vern Reports, using the basement of their home for workshop and office. Their 1941 report, which was sold to one hundred twenty-three business firms and advertising agencies, covered four hundred nineteen publications and recorded space used by twenty-five thousand advertisers. Purpose of the undertaking is to put the boys through college. That the boys entered whole-heartedly into the plan is indicated by comments contained in the story of their business undertaking.

In addition to compiling the Report, going to school and making good grades, the boys also conduct special studies for Brad-Vern subscribers. . . . On these studies they usually employ as many classmates as they need to do a complete, efficient job. During an exam week last term Vernon received thirty dollars for a special study he did himself then made four dollars for minding babies (while studying for the exams), rebuilt a plane, reported to school, and still found time to take care of his routine Brad-Vern work. Bradford, the younger partner, that same week painted a picture, negotiated sales for two others he'd previously painted, did a bit of gardening, dried the dishes regularly, and shined his dad's shoes each day at ten cents a pair.¹⁰

¹⁰Parker, James. "Those Industrious Van Diver Boys." *Advertising and Selling*, September, 1942, p. 24.

Boys' organizations aid in the encouragement of the attitude of successful achievement through co-operation. Most notable of these is the Boy Scouts of America. Their program of directed activity yearly aids its six million members to approach reality with a spirit of practical idealism.

Contributing to the purposes of effective self-development the work of the 4-H Clubs deserves mention. Today a million or more rural boys and girls between 10 and 20 participate in contests and individual projects under the direction of competent leaders. Work of the clubs supplements other activities of properly managed farms, which also contribute to the personal self-sufficiency necessary for executive functioning.

Filling a need of city boys and coming somewhat nearer to industrial experience is an organization known as Junior Achievement. The organization is not widely known as the Boy Scouts and 4-H; therefore, a reasonably complete description appears justified, particularly since its aims are closely related to the development of embryo executives.

Junior Achievement is a movement directed and promoted by the industrial leaders of the United States to make available, to the youth of America between the ages of 16-21, a means whereby youth can obtain a well-rounded practical understanding of what makes our business structure function.

This is being done in order to have our youth, who will be our future industrial leaders, know about and be in favor of maintaining our private enterprise system, through getting an understanding of the problems of management and labor.

Junior Achievement is designated as "Business in Miniature." A group of youth organize a Junior Achievement company as follows:

1. These youth incorporate—youth are under 21 years of age—a business enterprise and are granted a charter by Pittsburgh Junior Achievement, Inc.
2. This company is a stock company and the youth are the incorporators, stockholders and officers, supplying the initial paid-in capital. Par value of stock is usually twenty-five cents.

3. The youth adopt by-laws and become themselves the directors of their company.
4. From among their group they elect the executive officers, and with other appointive jobs, they comprise the management.
5. These same youth—all comprising the company—are then in turn the labor.
6. The youth select three adults to counsel them (by advice) in their company operation: a business man, production man, and salesman.
7. The youth locate a "factory site" which is usually a shed, vacant storeroom, unused garage or basement in a home.
8. They then proceed to develop and manufacture some merchandising item, which they sell.

Membership in any one company is limited, so each member has a chance at all sorts of problems. Necessary additional capital is raised by the *youth themselves*. They engage the space for their shop and office facilities, install tools and equipment, set up their company books, and buy their initial raw material and supplies.

They pay wages and sales commissions to their members according to the wage scale and commission schedule set up by themselves. They keep their own books, make their own purchases, their own disbursements and set up reserves. They conduct their own shop in which members are all labor. They conduct monthly directors meetings and annual stockholders meetings. Where business warrants it at the end of each year, the directors determine the disposition of profits, by declaring dividends and/or paying bonuses.¹¹

Advisors and directors for Junior Achievement activities include many public-spirited industrialists. The support of such men is necessary for the success of the type of activities engaged in by young persons forming business organizations as outlined. It is likely that greater participation in community affairs of this type will become necessary in the future if our system of private enterprise is to survive.

BE REALISTIC

The young man with ambition to make a career for himself should not be misled by our characteristic American tendency toward over-optimism. That human beings are equal in a spirit-

¹¹Information supplied by Pittsburgh Junior Achievement, Inc., 118 Sixth Street, Pittsburgh, Pennsylvania.

ual and legal sense is the essence of the American philosophy of life, a philosophy which has gained more personal freedom and satisfaction than any other principle of national existence. But no amount of twisting and warping of the principle of equality can make it applicable to ability. The realistic views set forth in a pamphlet prepared by the National Association of Manufacturers with the assistance of the National Vocational Guidance Association and the U.S. Office of Education are ones which prospective executives should consider carefully.

Ambition for certain jobs that are glamorous and interesting is a natural and healthy thing. But proper weighing of the chances and the work and training and personal qualifications involved is the realistic approach. When you are realistic, you acknowledge that everybody can't have the glamorous jobs. You weigh all the factors involved; you move beyond wishful thinking and get "down to brass tacks." You look thoroughly into the qualifications required. You ask yourself a lot of questions as to how you meet or how you may train yourself to meet the qualifications. You plumb yourself as to the seriousness of your purpose.

Then, if you find that your ambition is serious and you go to work to achieve it, you may be able to show that in a full measure there's always room for more. For it is that type of approach and stick-to-it-iveness along with the necessary fitness and capability that makes the one job of a hundred or a thousand yours.

On the other hand, if you weigh your chances realistically and then decide that you had better turn in some other direction you have done an important thing in selecting a vocation that will make you happy.

For the most part, beginners in any field of endeavor start at the bottom and work their way up. This has always been true, and the opportunity to do it has always been part of the American way of life. A young person can usually progress just as far as his or her ability and industriousness will take him. A survey of the top executives in the steel industry showed that three out of four of them had come up from production jobs in the mills. And so it is with many executives in other industries.¹²

¹²*Preparing for Industrial Work*, National Association of Manufacturers, 1941. pp. 33-34.

Despite abilities, opportunities vary with individuals. Hence even the possession of ability is no guarantee that full opportunity for its use will be found. Both the environment and hereditary backgrounds of an individual are related to elements of chance. The relative importance of environment and heredity cannot be designated in terms of more or less. They constitute two forces, both of which must be favorable for the development of an individual, and no person can go further than his limitations in respect to either. To attempt to do so can only result in frustration.

If you have the necessary ability, and environmental factors are favorable, you may sometime function as an executive in case you so choose. This book may help you to learn about executive ability, but it cannot provide a magical routine for the acquisition of ability. For some persons the procedures suggested for discovering and developing executive talent will prove of little value. Many will find themselves temperamentally unsuited to such work; the more they attempt to exercise executive characteristics, the greater the dissatisfaction and abhorrence and consequent failure.

Executive Attitudes and Emotional Nature

BEYOND A CERTAIN POINT IT IS EVIDENT THAT INTELLIGENCE MUST BE supplemented by other factors in order to make successful executive functioning possible. Some of these factors are mental in nature since they involve the acquisition of information, the application of analytical thinking, and the exercise of critical judgment. However, our study of the executive problem has convinced us that there are many factors in executive personality that are almost entirely emotional in nature and origin.

INTELLIGENCE AND EMOTION

Intelligence is a highly important quality in any business, professional, or social activity, but it is only a tool in the service of the major driving forces of emotion. Emotion provides the means whereby the individual adjusts to his environment; more specifically it serves as a source of energy and as a means of protection. Out of the emotional capacities of the individual develop the compelling motives which guide the individual in his dealings with the physical and human elements in his surroundings. Emotion provides such things as an all-pervading love attachment for another person, a driving ambition to attain recognition in work, an insatiable curiosity, blind anger directed toward perceived personal injustices, and often unconquerable tendencies to escape things feared, such as social disapproval, disease, and death.

Emotion is highly generalized at birth, and individualized emotional attitudes develop genetically through experience. These attitudes determine the way in which we use our mental powers, and the patterns of our emotional nature result in variations in personality. It has been shown that the problem of executive aptitude is closely related to the problem of personality. Intelligence is one of the essential phases of the executive personality, yet of two individuals of practically identical intelligence, one may be wholly unfitted for executive responsibilities while the other may very successfully fill managerial positions. Differences in personality which limit executive usefulness arise primarily from the emotional direction of basic capacities.

EMOTIONAL PATTERNS

The earliest and simplest reactions of human beings are basic reflexes which, with few exceptions, become modified by experience or are conditioned and become operative in the more involved reactions of adults in the form of habits and attitudes. Certain rather common patterns of reaction observable in animals at birth have been called instincts. These are more complex than the simple reflexes, since instinctive response involves a series of reflexes. It is more accurate to use the term "instinctive tendency" in describing inherent patterns in human beings, because native behavior in man is subject to conditioning or modification with experience.

Adult human behavior follows definite habit patterns some of which have been influenced in their development by instinctive tendencies. Habits which are motor in nature depend upon the establishment of neural synaptic circuits which activate the striped or "voluntary" muscles. Native reactions of the glandular tissues and responses of smooth or non-striated muscles of the viscera operating under the control of the autonomic nervous system form the basis of our emotional responses. Emotion, as we are aware of it, is the feeling or awareness of internal change that

is associated with these glandular and smooth-muscle reactions. Glandular and smooth-muscle responses which make up instinctive tendency in a highly generalized sense become modified by experience or conditioned and mentally associated, consciously or unconsciously, with external and internal stimuli and form the basis of personality. Just as striped neuro-muscular patterns become set or fixed to form motor habits, so smooth-muscle patterns with associated affective tone become established to form temperament.

It is not wholly true to say that the use of intelligence or other mental capacity depends upon the directive influence of emotion. Choice, which is the will to do a certain thing or the will not to do it, is exercised in many situations involving human responsiveness. Popularly the exercise of choice is referred to as display of will power. The psychology of choice has not been established in a manner to satisfy standards of science. Popular thinking has gone far beyond the findings of science in reference to choice, and the term will power is commonly used to include control over various kinds of mental and physical action in which the agent is conscious of an aim, and of effort to realize it. Will is an important element in executive ability; therefore, we shall have occasion to return to a discussion of it later in this chapter.

DEVELOPMENT OF HABIT SYSTEMS

From the preceding statements it should be clear that emotions, as they occur in adult behavior, are habit systems. We develop attitudes of fear, anger, and affection just as we develop habits of cleanliness, modes of speech, and individualized patterns of facial expressions. All habits which relate to emotional responsiveness are likely to be highly individual in form. A more objective understanding of the nature of habits and attitudes, emotional and otherwise, will be gained by studying the following outline of forces operating in the establishment of habit systems.

1. The environment in which one lives initiates action, and, also, restrains action. Action is essential to the establishment of habit systems.

2. Reflex mechanisms, involving sense organs, the nervous system, skeleton, and muscles, make responses possible. Likewise they limit the extent and nature of responses to the environment and to inner drives.

3. Feelings and emotions lend value to responses. They make possible the experiencing of pleasure, annoyance, fear, anger, joy, sorrow, affection, and love. Basic tendencies exist in human beings which determine in a very broad way which of these shall be experienced in early-life responses to stimulation from environment, but these basic tendencies soon give way to individual patterns of responses. Eventually attitudes are formed which color experiences with the concrete things which nature provides in our environment, with the objective things that man has created, and with more abstract or abstruse ideas and concepts.

4. Organic mechanisms closely linked with feeling and emotion may in themselves initiate action. These are discernible in every individual in the form of hunger, thirst, fatigue, sex craving, bodily movement, escape, shielding and protective behavior, and eliminative functions. Closely related to these are certain desires, native or quickly formed by experience, to conform, to explore, to vocalize, to imitate, to compete, to have offspring, and to possess.

5. The ability to choose between two or more responses comes into being as a result of experience, and is a mixture of intelligence, physical drives, and habit.

All of the above factors operate in the development of personality traits. They determine the modes of response which shall become characteristic of different individuals. No one of these factors can be said to be the most important, since none can operate without the others. Nor are we seriously concerned as to rela-

tive importance because we are interested primarily in the quality of the reasonably mature personality.

THE POWER OF WILL

Since, as has been noted, will power is a commonly misused term and one better described in popular than scientific language, discussions of this topic are usually descriptive rather than systematic.

The main characteristics of an act will follow from two facts. In the first place, we are multiply-motivated individuals with several drives rather than one; and in the second place, the drives are each one modifiable by experience. Each person finds himself driven to make some adjustment to his situation, but often the adjustment made is observed objectively by other people to be very unsatisfactory. The weak-willed person is weak-willed not because he lacks the bulldog jaw or has any other physical defect, but because his adjustments to different urges have been inconsistent with one another. Edgar Allan Poe is a good example of a weak-willed person. He wanted to be a southern gentleman, and still at times he wanted to become violently drunk. He wanted to enter society, and he also wanted to marry a sick girl who could not go with him into society. He wanted to be proud of his parents, and he wanted to live with people who despised his parents. Such conflicting wants lead an individual to burn up his energy in fighting himself. This leaves no energy to attack the environment, and thus we call him weak-willed.

Weak-willed people are characterized by what are termed defense mechanisms. They have urges to make satisfactory adjustments, as do the strong-willed persons. But, finding themselves in conflict with their own natures, they excuse and justify themselves in a variety of ways for not making a satisfactory adjustment. The following example will indicate what is meant by a weak will.

C.D. has delayed his adjustment because his drives have been dissipated in a variety of ways. He is now twenty-two years old. He left home when he was nineteen. He is a high-school graduate and studied mechanical arts. Spelling was always his weakness. "If I could have spelled better, I would have taken another course." He took mechanical drawing, did posters, and had some ambition to be an artist. Then he worked for two years and nine months on a boat, fire- and water-

tending. He did a little ushering in a theater. He worked three months in a filling station. He does not like mechanical work. Hunting is his chief recreation. He likes swimming and dancing and singing. He would like to have some training in music. He likes to yodel sentimental songs. He would like to take up the accordion, but he cannot sing or play before people because he is overcome with stage fright. He thinks he needs more push if he ever wants to get anywhere. His three vocational objectives are: (1) illustrating, (2) music, (3) business. C.D. has a weak will because he has deferred making any vital adjustment and has made a whole series of temporary partial adjustments. He has not organized his drives but vacillated from one to another.

The characteristics of a strong will follow from the same basic factors as those of the weak will—that is, from the fact that we have many motives rather than one motive, and our urges, or drives, can be modified and co-ordinated. If his multiple drives and likes are united in some unified purpose, the individual has the strength of this combination of drives. A weak-willed individual resembles a mob, while a strong-willed individual resembles an army. The individuals in the mob may separately be as strong as the soldiers in the army, but the army has an inestimable advantage over the mob. In the same way a purposeful individual with integrated interests has an advantage over an individual whose interests are not organized. When a person does not fight against himself, his energy can be used to attack the difficulties of the environment. In consequence, the characteristic of the strong-willed person is that he is able to struggle and act when occasion calls for it. A strong will, then, is to be found in the development of purposes, in the imagination and foresight which enable a person to integrate his purposes, and in the formation of habits of action in line with these purposes.

Examples of strong wills are easily found among those who have been successful enough to be described in biographies. . . .

At seventeen years of age Cooper was apprenticed to a coach-maker for four years. He was to get twenty-five dollars a year with "board, washing, and mending." The first two years he saved twenty dollars from his wages. For the next two years his employer voluntarily gave him one hundred twenty-five dollars. He had done his work, plus inventing and patenting a machine for binding wagon hubs. He was given one-third of the royalties since the invention was made on his employer's time. Still lacking money to go into business for himself, he took employment at a dollar and a half a day with a cloth

manufacturer. He invented a machine for perfecting woolen cloth and sold the rights on his patent for five hundred dollars to Mr. Vassar, founder of a certain "female seminary." He then married a girl who aided him in his plans from that time on. During the war of 1812 woolen cloth was in considerable demand, and Cooper made good money. He used some of this money to buy a store. The store he sold at a profit and began to manufacture furniture. The man from whom Cooper bought his furniture glue did not like the business and traded his factory for Cooper's good-will and furniture business. The glue factory prospered and became the greatest of its kind in America. In the factory was a machine shop. Here Cooper constructed the first steam engine made in America. He finished it in a hurry, because he had purchased charcoal kilns and real estate in Baltimore, and that city was faced with ruin as it became isolated by the canal systems of Pennsylvania and New York. To protect his Baltimore interests Cooper helped to build a railroad from Baltimore to the Ohio. His engines were used. He manufactured the iron for rails and bridges.

Cooper took an interest in the civic interests of his home town, New York, and gave the interests of the city much of his time and thought. He persuaded the town to do away with wooden water pipes and install cast-iron pipes, which he made. He fought the division of school funds among religious denominations and organized the Free School Society. Later, still unsatisfied with educational procedures, he built Cooper Union, putting bridge iron in the building and so originating the idea of steel frame buildings, for which he later was to furnish iron. In Cooper Union Hall free thinkers, such as Robert Ingersoll, spoke, their speeches arousing nation-wide controversies and advertising Peter Cooper, manufacturer of iron and glue, beyond the dreams of avarice.

This is but a sketch of part of Peter Cooper's mental skeleton and leaves out the flesh and blood. He was not an avaricious individual, but a man whose interests supported, balanced, and reinforced each other. He was well integrated. He had a strong will.¹

EXECUTIVE PATTERNS

The basic emotions, feelings, and physical urges developed through experience into habit and attitude patterns come to be

¹Weinland, James D. *General Psychology for Students of Business*. Crofts and Company, 1940. pp. 336-339.

known as personality traits. Any test which will distinguish executive characteristics must measure the emotional patterns of the executive. This much is evident to anyone willing to make more than a cursory study of executive functions. Making a decision requires intelligence, to be sure, but whether a decision will be reached in the executive manner is more a problem of emotional behavior than one of intelligence. Given three persons of equal intelligence, facing the same problem and aware of the same factors, three different reactions may result—one may decide hastily without carefully considering the relative weight of all the facts; another may balance one fact against the others interminably without reaching a decision; and the third may reach his decision with reasonable promptness after giving due weight to all the evidence. The third is executive temperament; the other two are not. Perhaps the other two could be re-educated emotionally to make them react in an executive manner, but until they are re-educated it would be impossible to consider them as being of executive caliber.

The question of carrying responsibility is also a problem of emotional pattern. The three men cited above would probably react in about the following manner: the first would accept responsibility too lightly and would act without sufficient deliberation, and when involved in trouble as a consequence of erroneous decisions would probably dismiss the matter lightly; the second would be over-sensitive and fearful, or would try to avoid acceptance of responsibility; the third would assume responsibility with his eyes open and would be prepared to accept the challenge involved.

EMOTIONS PROMINENT IN EXECUTIVE TRAITS

Of thirty-three traits specified on pages 104-105, thirty-one are to some extent the product of emotional reactions. The exceptions are physical qualifications and knowledge of fact, and even these may be affected by emotional conditions. The other traits rang

all the way from blends of emotions and intelligence to almost purely emotional reactions. Power of analysis is a blend of emotion and intelligence in which intelligence is the predominating factor. This is also true of the ability to exercise discrimination in determining the relative importance of elements involved in a problem. Such qualities as perseverance and courage are, however, almost wholly emotional in nature. The other twenty-seven traits differ in the proportions of emotion involved, but are, for the most part, emotional traits.

EMOTIONAL SENSITIVENESS

One important characteristic of executives is the ability to understand and appreciate emotions in others. This trait is designated in our listing of executive traits as sensitiveness to human traits and reactions. To understand others one must be able to evaluate their feelings and emotions. The executive cannot afford to respond to the same emotional appeals that arouse employees under his direction, but he must be able to use these appeals and sense their importance when used by others.

Almost every person can and does appeal to intellect in others. However, intellectual appeals are often cold and non-motivating, whereas emotional appeals are likely to be strongly motivating. Few people are capable of directing appeals in such a way that they contain both intellectual and emotional elements. But, to be lasting as well as effective, appeals should be both intellectual and emotional. If the objective to be gained is a worthy one, no harm will come of the use of emotional appeals, but support won through emotional appeals may be temporary unless bulwarked by appeals to understanding.

Emotional appeals should be broad. Many executives in the past have been satisfied with the use of fear as the basis for emotional appeals. This has proved to be dangerous, and as the common man comes more into political and social prominence, it will become even more dangerous. Appeal to fear is likely to

prove to be a boomerang, because the use of fear in social control easily leads to resentment. To some extent appeals to fear are restrictive because fear inhibits efforts. The abuse of the fear appeal by an executive is symptomatic of weakness in that executive because appeal to fear usually means the presence of fear. The tyrannical ruler indulges in tyranny because he is afraid of his subjects and does not have the courage to deal with them in a straightforward manner. Appeals to anger, envy, hatred, and suspicion are even less valuable as energizers of industrial employees. These emotions either cannot be governed once aroused or tend to be momentary in their forcefulness.

Unfortunately the elements of anger and hatred are likely to be aroused among employees unintentionally. These are most often aroused because of obstruction of the employee in his work, interference with his progress in the organization, irritating personal frictions, and apparent injustices. The proper method of dealing with such situations is that of removing or correcting the cause of emotion. Often in dealing with employees a frank and sincere manner will counteract the ill effects of obstruction even though the cause itself cannot be removed. Utilization of fear need not be wholly abandoned. A certain amount of respect must be commanded. All of the friction aroused between management and men cannot be wholly eliminated, but much of the fear, anger, and hate which are inhibitive and destructive can be supplanted by other emotional appeals, such as appeal to loyalty, pride, love, and enthusiasm. One of the serious problems that industry must face today is the fact that it is difficult to live down old prejudices which employees have developed as a result of treatment believed by them to have been unfair in the past.

EMOTIONAL RESTRAINTS

An executive cannot afford the luxury of giving free play to his emotions. He must control and direct his emotional attitudes and must learn to restrain his emotions without repressing them.

He must learn to meet situations with restraint and reason regardless of the amount of emotion displayed by others. He must learn to reprove and reprimand without becoming emotionally aroused himself. Emotional control depends largely upon the degree of understanding possessed by an individual and the habits of restraint and re-direction that he has developed. A careful study of the physiological and behavior aspects of emotion should be made by every executive—prospective and actual. He should become familiar with the causes, mechanisms, and consequences of emotion.²

Specific rules for emotional control are difficult to formulate; however, the following may be helpful. (a) Try to discover the true cause of emotional display, and, if possible, remove the cause or stimulus. (b) Try to see causes or stimuli in their broader aspects so that the emotion-arousing element will be minimized. Seek out the pleasant as well as the unpleasant. (c) Turn upon the emotion. Introspective observation of emotion tends to dissipate its force. (d) Delay action during a state of emotion. (e) Refrain from outward display of emotion, no matter what the inward feelings. The corollary to this is the practice of assuming the outward aspects of the attitude which one desires to experience. (f) Realize that a certain amount of obstruction and disappointment are inevitably part of the life of every individual. (g) Avoid crowd or mob stimulation by studying the crowd. (h) Look upon emotion as a phenomenon to be studied. Give reason a chance.

EMOTIONAL MATURITY

Emotions play an important part in the lives of children, and emotional behavior in modified form persists throughout life. Early emotional experiences have a lasting effect upon the indi-

²For a brief summary of the elements of emotion see:

Shaffer, L. F. *The Psychology of Adjustment*. Houghton-Mifflin, 1936. pp. 40-55.

See also Dashiell, John F. *Fundamentals of Objective Psychology*. Houghton-Mifflin, 1928, Chap. VIII.

vidual, consequently childlike emotional tendencies are frequently displayed by adults. We expect the child to display emotion; therefore, our standard of judgment of emotions in children differs from that which we apply to adults. With physical maturity a maturing of emotions is expected, yet this maturing of emotions does not always occur. Maturity in emotional response is absolutely essential to executive functioning. To a limited extent emotional maturity can be measured. The check list reproduced below will aid the reader in determining the extent to which he has developed mature emotional attitudes and habits.

Emotional Maturity Check List³

A

THE EMOTIONALLY IMMATURE PERSON:

1. Is intolerant of opinions which differ from his own.
2. Is intolerant of persons of other races or customs.
3. Becomes upset when faced with several urgent problems.
4. Changes interests rapidly.
5. Characteristically appeals for help in solving problems.
6. Chooses action to satisfy immediate desires.
7. Is afraid to tackle difficult subjects such as science or mathematics.
8. Is easily shocked by discussions relating to sex or other intimate subjects.
9. Worries about the possible consequences of an unwise decision.
10. Has difficulty in making up his mind and vacillates on decisions.
11. Often regrets decisions.
12. Is over anxious about the outcome of things he undertakes.
13. Is constantly beset by conscience.
14. Easily becomes jealous of others.
15. Can be easily persuaded to comply with the will of others.

B

THE EMOTIONALLY MATURE PERSON:

1. When criticized or reprimanded, explains action without anger or excitement; or else ignores criticism or reprimand.

³Adapted from Willoughby, Raymond R. *Emotional Maturity Scale*. Stanford University Press, 1931.

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2. When faced with several problems, picks out the most urgent, solves it then considers the others in order of importance.
3. Makes a decision and adheres to it without regret.
4. Is not ashamed of, or afraid to think about sex problems, but is not preoccupied with the topic.
5. Does not shirk problems which involve precise thinking.
6. Is not afraid of "hard subjects" such as science or mathematics.
7. Makes decisions on the basis of evidence; changes opinions only upon presentation of new evidence.
8. Can discuss a debatable subject without heat.
9. Admits equality of a younger person who has proven ability.
10. Chooses course of action with long-time satisfaction in mind.
11. Is interested in causes of evil and their eradication.
12. Can discuss prospects of death without deep emotional disturbance.
13. Attempts to solve knotty problems systematically.
14. Looks for truth in a discussion or argument, not conviction of others.
15. When interrupted in pursuit of purpose, resumes or abandons act unemotionally in the new situation.

The items listed above are symptomatic, not necessarily descriptive. You are emotionally mature to the extent that the number of items you have checked in list B exceeds the number of items you checked in list A; you are emotionally immature to the extent that the items checked in list A exceeds those checked in list B. Usually it is difficult for one to be objective in personal appraisal; therefore, you should have other persons check the behavior items in lists A and B and designate those which are most characteristic of you. With the information which you are able to secure from others and with the knowledge which you possess concerning your own emotional tendencies, it should be possible for you to develop a plan for establishing habits of emotional maturity.

EMOTIONAL REPRESSION

In seeking to control emotions, there is always danger of repression. Instead of avoiding the arousal of emotions or seeking to control and direct them by using one of the procedures previously

mentioned, the individual may consciously or unconsciously block or repress them. Under such conditions the force of emotion seeks an outlet in disguised or indirect form. Anger aroused by one stimulus may be squelched for the time being and crop out later in violent action in another direction. A foreman made angry by his supervisor may "bawl out" his men without realizing the true reason for his actions. This gesture is so common in daily life that an expression to describe it, "taking it out on the dog," is often used. Innocent persons and inanimate objects often are the recipients of unwarranted attacks.

In addition to the power of emotion there are other biological forces constantly operating to direct human behavior. These include the great positive organic urges which, under appropriate conditions, cause the individual to seek opportunity for eating, drinking, resting, sleeping, body evacuation, body protection, and sex activity. Almost as potent as determiners of behavior are the basic desires for bodily movement, manipulation, struggle, mastery, fighting, and personal possession. When these and other biological drives seek opportunity for expression, repression of them results in distortion of behavior just as does repression of emotion. Learning to cope with appetites, drives, and emotions is necessary for successful personal adjustment.

Throughout life there occurs a constant struggle between physical drives and conscious self-direction. As a consequence, mental conflicts arise. The conscious stream of thought provides ideas, images, and concepts, the origin of which the individual can readily recognize, but the stream of conscious thought is carried along by highly generalized subconscious psychic energy. The existence of unparticularized psychic energy has been recognized since the time of Aristotle, but its nature is not wholly understood even today. Aristotle referred to fundamental psychic energy as "hormé." The force was designated by Schopenhauer as "the will"; by Bergson as "élan vital"; and by Jung as "libido."⁴

⁴Freud distorted the concept of psychic energy by seeking to prove identity with the sex drive.

As currently understood, psychic energy may be defined as "the sum of the vital energy that motivates the life adjustments of the individual." Dynamically there is constant "conscious or unconscious striving on the part of the organism for the release of its inherent energy." Emotion is the agent that "transmutes the potential energy of the organism into psychic energy."⁵

The stream of psychic energy has unconscious depths in which are submerged hidden memories and motives.

Logic plays a part in directing the minor currents in the stream (of consciousness), but the power which drives the stream and determines its main course originates in emotional systems . . . The effect of such an emotional system is to throw into the stream of consciousness ideas belonging to the system to reinforce currents in harmony with it, and to inhibit currents which are incompatible or in conflict with the goal which it is trying to achieve. The emotional systems are known by many names—bias, prejudice, intuition and so forth—but their action is the same in each and every case, the forcing of the stream of consciousness into a direction which will subserve the goal of the system and the inhibition of all ideas and tendencies which would conflict with that goal.⁶

Sometimes thoughts and actions which we believe to be consciously directed are the product of subconscious motivation. It is necessary, therefore, to learn to avoid the commoner forms of self-deception. Thwarting of emotions and other basic drives may result in adjustments which destroy personal effectiveness. Among those to be avoided are the following:

1. **Introversion.** In this form of withdrawal from reality the individual substitutes daydreaming and phantasy for accomplishment.

2. **Rationalization.** "Wishful thinking" is the descriptive term popularly used to describe this mechanism by which conclusions are drawn that are favorable to one's desires and prejudices as a result of more or less complete blindness to contrary evidence.

⁵Noyes, A. P. *Modern Clinical Psychiatry*. Saunders, 1934. pp. 28-32.

⁶Hart, Bernard. *Psychopathology*. Macmillan, 1927, p. 130.

3. Projection. This is the common practice of blaming others, unfavorable conditions, or alleged pernicious influences for failure to accomplish one's purposes with total disregard for personal deficiencies or limitations.

4. Minimizing. The "sour-grapes" mechanism by which the unattainable or that which is difficult to attain is depicted as being not worth the effort required.

5. False optimism. The attitude that no matter how bitter the disappointment, nor how great the calamity, it might have been worse; something favorable will always turn up; or everything will be right in the end.

6. Conviction. On certain matters people maintain closed minds; their ideas have become fixed. Many prejudices, beliefs, and superstitions are truly logic proof, especially if they have been indulged in since childhood.

7. Negativism. This form of behavior partakes more of a fixed negative attitude than fixed ideas; resistance to evidence or suggestions coming from others.

8. Regression. A tendency to live in the past, often going to the extreme of lapsing into childhood emotional habits.

9. Sympathy seeking. A tendency toward self-abasement or confession of lack of competence operating with the hope of arousing sympathy and encouragement.

10. Introjection. Reacting to persons and evidence as though they were a part of one's own personality; thus, the head of a corporation may often act as though he were the company without regard for the individual identity of others who are members of the company.

11. Apathy. The "so what?" attitude of supercilious sophistication which refuses to see the significance in circumstances that may be highly important.

12. Circumstantiality. Digression engendered through concern with trivial or unimportant associated details.

13. Complex reference. A complex is a constellation of associated ideas having strong feeling tone which grows out of repression. Often remotely related ideas are colored by strong complexes, such as the labor mal-treatment complex of the agitator, the pro-capital complex of some business managers, and the pro-party complex of the politician.

14. Confabulation. Experience and evidence is often sketchy; therefore incomplete memory and products of the imagination are unconsciously used to fill gaps. Some persons fail to distinguish between real and imagined data and give equal weight to each.

15. Retrospective falsification. Regardless of whether we wish it or not, memory drops out some details of past circumstances and accentuates others. To some extent this is necessary for mental health, but faulty thinking may occur if allowances are not made for tricks of memory.

16. Attributing motives. While it is true that every person acts in accord with personalized motives, attributing ulterior motives to all of the behavior of those with whom one is associated leads to logical distortion.

17. Volatile association. The associative process operates with such high volatility in some minds that thoughts flow rapidly, fall pell-mell over each other, and by devious logic result in unwarranted conclusions; typically, jumping to conclusions.

18. Part-whole and whole-part confusion. Being so concerned with trees that one cannot see the forest and vice versa.

19. False analogy. Being confused by like elements in a comparison and failing to note distinguishing differences.

20. Compensation. Through compensation one trait or capacity is over-emphasized, strongly developed, to serve as a means of reducing tension arising from personal realization of a defect or lack of capacity in other directions. Compensation is not always objectionable. It may lead to highly desirable activities; however, it may also lead to wholly worthless endeavors. In extreme form it results in pseudo-achievement, the boasting about past achieve-

ments which have never been attained. Compensation, like other forms of semi-self-deception described above, has an adjustive value in that motives which have been frustrated are satisfied after a fashion, and attention is thereby directed away from the disturbing element.

Regardless of the value that may accrue to the individual through compensation and the other mechanisms which aid the individual to escape feelings of inferiority, they contribute negatively in the discharge of executive responsibilities. These mechanisms may exist in an individual in mild form without serious danger. However, if they are strongly developed they may produce personality defects which become socially non-adjustive, thereby unfitting the individual not only for executive positions, but for many other types of work. In the non-adjustive personality the simpler mental mechanisms are usually supplemented by delusions of reference, persecution, grandeur, illness, or identity, and may result in dissociation, development of phobias, obsessions, hallucinations, and other pathological mental-emotional states.

KEEPING MENTALLY FIT

Because the dangers involved in the thwarting and repression of psychic energy have been emphasized rather generally in recent psychological literature, many people have found therein excuse for unbridled expression of emotions and appetites. Unrestraint is equally as dangerous in personal life as repression. The proper handling of emotions and drives requires direction and control. There are no hard and fast rules for maintaining mental health, but the following suggestions may be helpful.

1. Direct psychic energy toward socially acceptable ends. Acceptable outlets such as religion, art, music, literature, research, and sports have helped many persons to maintain normal mental balance.

2. Guard health and follow a regimen for maintaining physical fitness. Illness and physical disorders contribute to mental maladjustment.

3. Admit that you are not a superman. Perfection is not human. Even though you must maintain self-respect, discuss your shortcomings with some of your intimate friends.

4. Tell someone your troubles if you feel that sharing will help, but don't be a sympathy-seeker.

5. Cultivate pleasant associates. Choose some that you recognize as being your equal and try to learn from those who have had experience different from yours.

6. Look forward toward achievement; momentary difficulties are seldom as important as they seem.

7. Share affections with others; hold deep affection for those whose relations to you call for it. A normal love outlet has a strongly balancing effect.

8. Look at the world objectively. Other people are but a part of the world you live in; try to understand and appreciate them rather than scorn or condemn.

9. Pursue a hobby.

10. Live with a purpose. Plan your life but don't be afraid to revise the plan.

11. Take vacations. Get away from the people, the place, and the work of every-day existence.

12. Have a place where you feel perfectly at home, where you can relax and be as careless as you please—a den, a game-room, a club.

13. Do something different at times. Break out of your ordinary routine; indulge a whim occasionally; seek the unusual in recreation or entertainment.

14. Turn upon your worries and try to perceive the real reason for them. For the most part the tendency to worry is a habit which can be modified.

15. Turn upon your fears and seek out their origin. Usually they are based upon some unfortunate experience that will seem relatively less important if you can identify it.

16. Turn anger into a drive to accomplish something worthwhile rather than use it to wreak vengeance and destruction.

17. Don't depend on sheer determination to keep going if you appear to be frustrated; seek out causes and don't be satisfied with explanations that fall within the limits of those discussed under the heading of "Emotional Repression."

18. Don't resort to intoxication or other artificial escape mechanisms; those who attempt to do so find only temporary release from tension and form habits which demand further pampering.

19. Develop the ability to laugh at your own mistakes and mishaps—if they are too serious at the time they occur, try to see the humor in them in retrospect.

20. Discuss your plans and "dreams" with someone in whom you have confidence. Seek advice if you like, but don't do it too frequently.

EMOTIONAL STABILITY

Both over-repression and over-indulgence of emotions result in unstable emotional habits and attitudes. People differ widely in the degree of emotional stability, which may be defined as the ability to maintain emotional balance. Some people maintain the same emotional level for a long period of time; others fluctuate emotionally within very narrow limits of variation; while others go through veritable cycles of change from elation to depression, love to hate, anger to joy, etc. People differ not only in the degree of characteristic emotional responses, but also in the variety of stimuli which arouse emotions.

Emotional adjustment can be estimated roughly by responses to the questions listed below dealing with typical behavior patterns. Frank answers are required; therefore, try to make a fair

appraisal. Write the numbers 1 to 44 on a sheet of paper and record your answers following the number corresponding to the question.

Emotional Stability Check List

1. Can you be optimistic when others about you are greatly depressed? Yes No
2. Do you daydream frequently? Yes No
3. Can you stick to a tiresome task without outside encouragement? Yes No
4. Do you often feel just miserable? Yes No
5. Do you like to be with people? Yes No
6. Are you troubled with shyness? Yes No
7. Are you systematic in caring for personal property? Yes No
8. Are your feelings easily hurt? Yes No
9. Do you ever take the lead to enliven a dull party? Yes No
10. Are you troubled with feelings of inferiority? Yes No
11. Do you take responsibility for introducing people in a group? Yes No
12. Does some particularly useless thought keep coming into your mind to bother you? Yes No
13. Do people come to you for advice? Yes No
14. Do your feelings alternate between happiness and sadness without apparent reason? Yes No
15. Can you express yourself better in speech than in writing? .. Yes No
16. Do you worry over possible misfortunes? Yes No
17. Do you usually work out things for yourself rather than get someone to show you? Yes No
18. Are you troubled with the idea that people on the street are watching you? Yes No
19. Can you organize groups of persons into teams or clubs? ... Yes No
20. Are you touchy on various subjects? Yes No
21. Do you make new friends easily? Yes No
22. Do you feel self-conscious in the presence of superiors? Yes No
23. Are you thrifty rather than impulsive in making personal loans or contributions to charity? Yes No
24. Do you lack self-confidence? Yes No
25. Can you assume responsibility? Yes No

- | | | |
|---|-----|----|
| 26. Do you often experience periods of loneliness? | Yes | No |
| 27. Can you criticize others without offense to them or embarrassment to yourself? | Yes | No |
| 28. Do you often find that you cannot make up your mind until the time for action has passed? | Yes | No |
| 29. Do you usually face troubles alone without seeking help? ... | Yes | No |
| 30. Does it bother you to have people watch you at work? | Yes | No |
| 31. Can you be unconventional without feeling uncomfortable? .. | Yes | No |
| 32. Do you consider yourself a rather nervous person? | Yes | No |
| 33. Can you stick by your opinions even though others disagree with you? | Yes | No |
| 34. Do you get stage fright? | Yes | No |
| 35. Can you make decisions quickly? | Yes | No |
| 36. Are you easily moved to tears? | Yes | No |
| 37. Are you even-tempered? | Yes | No |
| 38. Do you often feel self-conscious because of personal appearance? | Yes | No |
| 39. Can you laugh when the joke "is on you"? | Yes | No |
| 40. Do you find it difficult to speak in public? | Yes | No |
| 41. Are people more entertaining to you than books? | Yes | No |
| 42. Does your mind wander badly so that you lose track of what you are doing? | Yes | No |
| 43. Are you careful not to hurt other peoples' feelings? | Yes | No |
| 44. Do you hesitate to volunteer an opinion? | Yes | No |

In scoring this questionnaire, give yourself one point for each odd-numbered question to which you have answered "Yes" and one point for each even-numbered question to which you have answered "No." The higher the score the greater the indication of stability and conversely for the lower scores. A score below twenty-five indicates an unsatisfactory state of emotional adjustment for ordinary vocational success and indicates a need for objective study of emotions as well as rigid self-examination. A score below thirty is unsatisfactory for executive success. A score below fifteen indicates an emotional state so unsatisfactory as to warrant consulting a psychiatrist. Note that many reactions

indicated by the questions are subject to change. List those requiring modification in your case. Have several people who are well acquainted with your personal reactions rate you on these questions. If they differ with your self-estimate, try to discover the reason and make adjustments which seem warranted.

PAYING THE PRICE FOR EMOTIONS

Meeting executive responsibilities heavily taxes human capacities. Like any delicate mechanism the human organism breaks down when overtaxed. The whole tempo of present-day existence has greatly increased the number of persons who succumb to mental disorders. "There are today more hospital beds in this country occupied by the mentally disordered than by the physically ill."⁷ The full significance of that statement can be more fully realized if the fact that all the mentally ill are not confined to hospitals is considered.

Proper balance of emotional elements would contribute to correction of mental disturbances in 60% of the cases. Forty percent of disorders are known to have an organic basis. These include: (1) traumatic disorders, those arising from physical injuries; (2) glandular disorders; (3) those engendered by toxic poisons; and (4) those induced by infectious conditions. The sixty percent which are functional in origin include: (1) acute psychoses such as disorders of the paranoia, dementia praecox, and manic-depressive types; (2) neuroses of the non-lesion type; (3) psychopathic personality adjustments; and (4) psychoneuroses. Mental-emotional disorders are the province of the psychiatrist, but observation of precautions set forth in this chapter may serve as preventive measures against certain of the functional disorders.

Psychopathic personality adjustments are numerous. Some of the more common are characterized by extreme forms of the twenty forms of self-deception listed on pages 308-311. In more extreme forms, exaggerated feeling of personal agency are promi-

⁷*Mental Hygiene Bulletin*. March, 1929. National Committee for Mental Hygiene.

nently displayed, and, in some instances, sexual perversions are present. Frank self-analysis and ruthless realism in dealing with personal problems are of considerable value in avoiding the pitfalls set by unconscious motivation to trap the unwary person who seeks to escape the facts of life.

Neurasthenia and psychasthenia are mental disorders which are sometimes referred to as by-products of modern civilization. They are the "nervous breakdown" disorders and are, no doubt, encouraged by the artificialities of conventional restraints. The stresses, strains, and shocks produced by daily events playing upon tense nerves cause man to pay the price in "asthenia" or exhaustion of the nerves. Neurasthenia is characterized chiefly by a sense of physical and mental fatigability, often accompanied by painful sensations in various parts of the body, and accentuated by feelings of depression and futility. Psychasthenia is characterized by obsessive impulses to think certain thoughts, to feel fear or doubt, and sometimes to do compulsive acts. "A larger portion of obsessive neurotics are individuals who in their personality characteristics are precise, oversensitive, shy, self-conscious, often tense in the presence of strangers, over-conscientious, and inclined to worry over responsibility. They are usually orderly, penurious, set in their ways, meticulous, frequently of superior intellectual capacity and interests, and yet so much energy is lost in their mental conflicts that they do not attain their highest possible efficiency."⁸

Prevention of emotional maladjustment is easier for the individual than correction, although neither may be said to be easy to accomplish. The psychiatrist treats such difficulties by trying to improve physical health, by encouraging rest, relaxation, and re-education, through suggestion and psycho-analysis, and by the application of certain special techniques too complicated to be reported here. The individual can apply some of the techniques used by the psychiatrist. He can take steps toward improving

⁸Noyes, A. P. *op. cit.* pp. 414-415.

physical health; he can increase the amount of time devoted to rest; he can relax disturbing tensions by finding interesting forms of recreation; and, by using insight, he can find ways of modifying habits which are contributing to his emotional difficulties. He cannot ordinarily practice psycho-analysis upon himself, but he may, by objectively considering personal problems, detect sources of tension. Frequently the bringing to light of tension areas in experience reduces the psychic energy which is unconsciously gravitating in their direction. If exposure to frank personal appraisal does not dissipate these tension areas, then it is often recommended that self-suggestion or auto-suggestion be used to draw off the emotional force with which they have become charged. The technique of autosuggestion will be discussed at a later point.⁹

The first step in dealing with emotional stresses is that of searching out and identifying them. There are numerous areas of tension in the experience of every individual. These vary from person to person and are often cleverly disguised, but usually they relate to experiences common to a large number of persons. In searching out tension areas, therefore, it is well to examine the possibility that one or more of the following factors are involved: (1) sex, (2) irritating personal relationships involving dominating tendencies by some other person, (3) lack of sympathy on the part of a greatly admired or deeply loved personal associate, (4) suppressed memories of experiences of early life which, at the time, seemed to involve supreme injustices, (5) lack of opportunity to discuss differences with persons who appear antagonistic, (6) unrequited affection, (7) disillusionment concerning close friends or parents, (8) work activities, (9) relatives and in-laws, (10) leisure-time activities which may be absorbing too much attention, (11) criticism by others, (12) conventional restraints,

⁹For helpful suggestions relating to mental hygiene see:
Morgan, John J. B. *Keeping a Sound Mind*. Macmillan, 1934.

Jastrow, Joseph. *Keeping Mentally Fit*. Greenberg, 1928.

Burnham, W. H. *The Normal Mind*. Appleton, 1924.

Hart, Bernard. *The Psychology of Insanity*. Cambridge University Press, 1916.

(13) personal finances, (14) religion, (15) suppressed remnants of emotional experiences.

AUTOSUGGESTION

Conscious efforts at self-control or self-direction often fail because of conflict with subconscious forces. The widespread failure of the average person to conform to New Year's resolutions is evidence in point. Resolution to do or resolve to be operate only when such attempts at voluntary self-control are in keeping with capacity and in harmony with unconscious motivation. One cannot will to be something of which he is incapable, nor can will lead him to do, without nervous disturbance, a thing which runs counter to subconscious motivation. However, through the use of autosuggestion, it is frequently possible for one to carry forward activities to the approximate limit of capacity and to harness unconsciously controlled psychic energy for the purpose of achieving a consciously conceived objective.

Autosuggestion is not generally understood even by persons who pretend professional knowledge of the human mind. The process is often pictured as a super-force operating in supernatural and mysterious ways. The literal truth appears to be that autosuggestion is neither a super-force nor an out-of-the-ordinary mental operation. Self-suggestion is in use daily—every thought that an individual has concerning himself is a form of autosuggestion. That self-suggestion does influence behavior is easily demonstrated; it is the effect of these thoughts that cannot be fully established either in a general sense or in an individual life.

Autosuggestion as used in everyday life is seldom consciously directed. Hopeful use of imagination in the form of ambition day-dreams and fearful use of imagination in worry are two excellent examples of everyday use of autosuggestion. In the majority of individuals such imaginative mental activity arises without being consciously called forth, and usually it either runs its course without direction or is stifled by shift of attention to matters of more immediate consequence. However, autosuggestion

can be directed and controlled to a limited extent, can be made to aid in attaining desired ends, and may be used to reduce sources of emotional conflict and mental tension.

Conscious self-suggestion is not autosuggestion. Autosuggestion appeals to the imagination and is emotionally satisfying. In using autosuggestion to bring about more effective use of capacity it is not sufficient to consciously say to oneself, "I will be more tactful." It is necessary to see oneself actually being more tactful in imaginary situations and gaining satisfaction from such imaginary behavior. If such use of imagination is mere day-dreaming or phantasy, then little purpose is served, because there is lack of intent and belief. Effective autosuggestion rests upon a belief in the possibility of accomplishing the thing imagined; there must be a definite intent to use imagination to direct the flow of psychic energy toward the accomplishment of the purpose desired.

The purpose of autosuggestion is to harmonize such psychic energy as may be present in the subconscious with the aims and purposes of rational thinking. Full receptivity to autosuggestion is not accomplished until the field of consciousness is narrowed down to the point where it can be filled with a single idea. Some exponents of the technique allege that the state of mind to be sought is one closely resembling that present in hypnosis, a state of mental activity which has sometimes been referred to as hypnoidal. The hypnoidal state is one of drowsiness in which the receptivity to outward stimuli is low and is accompanied by an unusual awareness that one is neither asleep nor awake. Typically, it is a state of mind which brings the capacity for consciousness to look upon itself objectively and extrospectively rather than subjectively and introspectively. The ultimate state sought is one of controlled psychic dissociation. It is desirable, therefore, to practice autosuggestion at such times when there is a closer merging of conscious and subconscious than is true in alert waking moments. The conscious and subconscious are more closely merged at certain points during daily experience; such as, im-

mediately upon waking, just before going to sleep, and in states of relaxation which accompany reverie. Utilization of such periods for developing the knack of autosuggestion and practicing with concentration, intent, belief, and appeal to imagination, will aid in the accomplishment of positive purposes as well as in the overcoming of faults. These purposes cannot be accomplished, however, unless there is a reduction of emotional tension.

Some experimenters with autosuggestion have gone so far as to claim that repeated use of the technique will aid in overcoming physical as well as emotional maladjustments. Others have formulated grandiose schemes for using autosuggestion as a means of attaining great wealth and social prominence. Exaggerated claims for the effectiveness of autosuggestion are unjustified, and it has been clearly demonstrated that some persons are incapable of using the technique in any form. The procedures outlined here are recommended for trial; they may prove helpful to some persons and useless to others.

It should be pointed out that certain dangers are attendant upon extreme forms of self-suggestion. One is the possibility of unintentionally producing states of actual self-hypnosis. The second is the possibility of succumbing to the unbalancing effect of becoming imbued with a sense of personal agency, a state which characterizes persons afflicted with pathological egocentrism. The third is the possibility of encouraging a tendency toward dissociation of personality, a tendency which may already be present in persons suffering from emotional tensions. A fourth is that successful practice of autosuggestion often makes the Yoga philosophy, and other forms of occultism based on half-truth, appear reasonable as a whole. The danger that autosuggestion will become the agent of spiritual enslavement is one of the reasons that scientific students of human capacities usually ignore it entirely or disparage its possibilities.¹⁰

¹⁰Brooks, C. H. *The Practice of Auto-Suggestion*. Dodd-Mead, 1922.

Baudoin, Charles. *Suggestion and Auto-Suggestion*. Dodd-Mead, 1920.

McCormick, Elsie., "How Your Mind May Make You Ill." *Readers Digest*, Oct. 1942,

EMOTIONAL ATTITUDES

One of the outcomes of experience and training is the establishment of a miscellaneous collection of attitudes. Attitude has been variously described as a "set of the organism toward the object or situation to which an adjustment is called for,"¹¹ and "the specific mental disposition toward incoming experience whereby that experience is modified" or "a stabilized set or disposition."¹² Through the process of conditioning we learn not only to identify objects and persons in environment, but attitudes toward them are formed. Even abstract concepts are accompanied by attitudes. Attitudes have emotional content of varying degrees. "The presence of the attitude means that the person is ready to act in a definite, meaningful way toward an object, which, on account of the person's previous experience with it, has emotional value."¹³

Sometimes the individual is aware of his attitudes, but frequently the attitude component of experience is unconscious. Even though the person is aware of his attitudes, he seldom realizes their significance; yet, since they are predisposing, they influence behavior. It is important, therefore, to examine attitudes and determine the likelihood that they are appropriately related to the type of behavior that the individual should display.

Strictly speaking there are no executive attitudes; that is, there are no attitudes which are always appropriate to proper executive functioning. There are, however, some attitudes which are more appropriate in the general run of executive situations than others. Attitudes are difficult to measure; their nature and existence are usually inferred from a study of behavior taken together with expressions of opinions and beliefs. Since attitudes are predisposing but do not definitely pre-determine behavior, it would not be possible to predict behavior with complete accuracy

¹¹Bernard, L. L. *Introduction to Social Psychology*. Holt, 1926, p. 246.

¹²"Definition of Psychological Terms." *Psychological Bulletin*, Vol. 29, 1922, p. 232.

¹³Krueger, E. T. and Reckless, W. C. *Social Psychology*. Longmans Green, 1931, p. 239.

even though it were possible to obtain full knowledge of existing attitudes. A rough indication of attitudes which are operating to influence the behavior of an individual can be obtained by ascertaining the beliefs of which the individual is conscious. There are probably several strata of attitudes which underlie beliefs, but usually it is difficult to give verbal expression to these underlying attitudes; their existence can only be inferred. The reader can conduct an experiment to determine some of his attitudes by answering the questions listed below.

Executive Attitude Questionnaire

In answering the following questions you will be required to indicate some of your beliefs. Place the numbers 1 to 40 on a sheet of paper and write the answer which you wish to give to the questions on that sheet.

Do You Believe?

1. That repeated criticism of people will make them work better? Yes No
2. That the application of a "little dynamite" is at times justifiable executive practice? Yes No
3. That an executive should assume a paternal attitude toward employees? Yes No
4. That an executive order should be countermanded if compliance seems unlikely or impossible? Yes No
5. That an executive should demand unquestioned compliance with every order? Yes No
6. That it is easier to find things to criticize in others than to find things to praise? Yes No
7. That an executive should assume an air of familiarity and fraternize with employees? Yes No
8. That every employee should be made to prove his worth?... Yes No
9. That the less employees know in general the better they will do their particular job? Yes No
10. That a failing employee should be transferred and given another chance before he is discharged? Yes No
11. That an employee should be retained for humane reasons even though found incompetent after fair trial? Yes No
12. That it is good practice to try to overcome ill-will of a discharged employee before he leaves the company? Yes No

13. That reproof administered in the presence of others is most effective? Yes No
14. That calling a person by his first name places him at ease?.. Yes No
15. That all blind-alley jobs should be eliminated? Yes No
16. That careful note should be made of all statements contributed by subordinates in a group meeting Yes No
17. That the proper attitude toward a dissatisfied employee who quits his job is "good riddance to bad rubbish"?..... Yes No
18. That it is wise to plant suggestions that you want in group discussions with others before holding the meeting? Yes No
19. That it is good practice to make an example of an employee occasionally for the effect it will have on others? Yes No
20. That a good way to present a problem to subordinates is to lay down a proposition, find out those who disagree with it, and require them to defend their point of view? Yes No
21. That it is wise to start a conference with a subordinate by criticizing his accomplishments? Yes No
22. That co-operation can be won by appealing to pride? Yes No
23. That best results can be obtained by putting subordinates on the defensive? Yes No
24. That an executive should permit two subordinates to debate their differences of opinion before expressing his views?..... Yes No
25. That since committees are sometimes less efficient than individual action they should be dispensed with? Yes No
26. That opportunity to talk to someone often relieves a grievance? Yes No
27. That it is better to start a discussion with subordinates by presenting a solution rather than stating the problem?..... Yes No
28. That it is a good rule never to say anything about an individual that you could not say to him personally? Yes No
29. That temptation should be deliberately placed in the way of employees to test their honesty? Yes No
30. That discourteous treatment of an employee is likely to encourage discourtesy on his part? Yes No
31. That an employee whose work is becoming inefficient should be permitted to "hang himself" before bringing his mistakes to his attention? Yes No

32. That it is possible to improve the quality of work by a person of low ability by praising him? Yes No
33. That it is good practice to remain cool toward a new associate until he proves himself? Yes No
34. That it is better to present facts to contradict a rumor than ignore it? Yes No
35. That someone should always be found to assume the blame for every difficulty which arises? Yes No
36. That it is good practice to try to anticipate questions which may arise concerning orders which are being prepared for issuance? Yes No
37. That irresponsibility in a young employee is less serious than it is in an older employee? Yes No
38. That it is good practice "to lay your cards on the table" in discussing a problem with a subordinate? Yes No
39. That it is good practice to tell another person his opinion is a poor one? Yes No
40. That it is good practice to point out specifically the faults and weaknesses of another person's suggestions?..... Yes No

A key to this set of questions will be found in the appendix, page 524.

INTUITION, INSIGHT, AND INTEGRATION

Many successful executives display amazing ability to exercise what seems, on casual examination, an ability to judge people and arrive at momentous decisions through the use of intuition and insight. Those who display the ability to size up people quickly or who are able to examine a problem, quickly apprehend its various and complex elements, and arrive at a solution which permits of immediate decision and action, usually are forced to admit that they depend upon obscure stimuli. When asked to explain the ability, there is usually a vague reference to the ability to "sense" differences in people or "apprehend" significant elements in a problem. Frequently attempts to explain the ability are dismissed with no more than a statement such as: "I simply do not like the man's looks; therefore, I cannot trust him." Yet intui-

tive judgment if it exists at all must have a more matter-of-fact explanation.

The common notion that intuition is a "gift" or is a force emanating from without which selects particular persons as its agent can be dismissed as having no significance for our purposes. However, intuition defined as "immediate apprehension or cognition; power of knowing or the knowledge obtained without recourse to inference or reasoning; insight; familiarity; a quick or ready apprehension,"¹⁴ is a matter of concern because it exists as a commonly recognized phenomenon. Most psychologists tactfully avoid a discussion of intuition, but the process is recognized in Warren's *Dictionary of Psychology* as "(1) immediate or innate apprehension of a complex group of data or of a general principle; (2) a judgment without known preliminary cogitation, the significant feature being the immediacy of the process; (3) the final stage in the act of perceptive synthesis."¹⁵ We are interested in three questions: (1) How can the phenomenon be accounted for? (2) To what extent can the judgment intuitively arrived at be depended upon? and (3) Can the capacity for intuitive judgment be developed?

Perhaps the best explanation of the phenomenon of intuition is that it is the product of unintentional formation of habits of judgment—of perception similar to that applicable in the evaluation of time and space. Another possible explanation of intuitivism is that the capacity is a product of the "wholeness" of experience. Every experience has something more than the rational in it. In responding to stimuli in the environment the human organism adjusts emotionally as well as physically, and unless restrained by rational controls, subconscious forces associate retrospectively and project imaginatively. There is an organic unity in life which provides for synthesis. Synthesis is "the joining together, either actually or in thought, of two or more data of any sort whatever so as to form a complex unit. It is distinguished from association in

¹⁴*Webster Collegiate Dictionary*. Merriam, 1942, p.

¹⁵Houghton-Mifflin, 1934, p. 143.

which the mutual interaction of the data joined together is minimized or neglected (though by some writers association as a mental operation is regarded as the base of all mental synthesis); from fusion in which the data lose their individual identity; and from integration which emphasizes the formation of the elements of a compact whole."¹⁶

Unfortunately the necessity of shaping individuals to the needs of society stifles the emotional elements in experience, and the ease of learning by imitation has a destructive effect on imagination. Therefore, for perfectly good social reasons, the development of creative synthesis, which is intuition raised to a high level of performance, is often restrained. Furthermore, because of the all-pervading desire of man to be a reasoning animal, intuitivism is frequently held up to ridicule. It cannot be denied that there is a danger in intuitive thinking; the danger lies in the fact that all of the steps of the process are not recorded and tested, and, as a consequence, unusual opportunity for error is provided. "In spite of their convictions, many intuitive thinkers have been wrong. If we recall the motivation that must energize thinking, we shall recognize the danger of finding solutions that please us rather than fit the facts. With intuition, verification does not come step by step, but after the solution is accomplished. This may be all right in a perfectly healthy mind, and the great mystics and insightful men have found out quickly many things that the research workers could not verify until years later, but many men have believed they knew the answer only to be sent to the bottom of the class."¹⁷

The problem of intuition has a long history, and often discussion of the subject leads to a consideration of the nature of mental life as well as the process itself. As pointed out earlier in this chapter intuitive force in the form of unparticularized psychic energy, designated as *hormé*, was defined by Aristotle. He suggested another concept to designate the activity of self-realization

¹⁶Warren, *op. cit.*, p. 270.

¹⁷Weinland, James D. *General Psychology for Students of Business*. Crofts, 1940, p. 477.

and called it "entelechy." Fundamentally the concepts of entelechy and *hormé* are philosophical. They form the basis of a system of thought known as vitalism which "assumes the existence and operation of a non-material entity or casual agent as an essential factor in the regulation of form, behavior, and evolution of organisms."¹⁸ Successively since the time of Aristotle several concepts closely related to intuition have held favor. The Stoics recognized some ideas as being innate; that is, some ideas were assumed to be present in the individual prior to experience. Descartes, the founder of rationalism, the theory that knowledge is derived from reason rather than experience, claimed that intellectual faculties are innate; Leibnitz maintained that mind as a generalized activity was innate. Kant suggested that conclusions arise from two sources: (1) reasoning with reference to accepted definitions or previously known or assumed premises, and (2) reasoning based upon experience. The English philosophers from John Locke to David Hume, who formed the school of empiricism, insisted that all knowledge is derived from experience and that sensory criteria are the ultimate test of truth.

Modern science has demonstrated the merits of empiricism, yet all problems of human behavior have not yielded to scientific explanation, nor is all behavior guided by knowledge and reason. In addition to directed behavior based on inductive and deductive logic, human adjustment is influenced by instinctive tendencies, emotional habits, and automatized neuro-muscular co-ordinations (habits). Intuitive responses partake of the three last named elements, and involve a touch of memory of earlier logically determined conclusions.

One of the aspects of intuition which makes it difficult to dismiss the subject lightly is the fact that it appears to play highly important but entirely different roles in the existence of the lower forms of living organisms and in the higher forms of mental activity in man. In lower organisms intuition guides adaptation

¹⁸Warren, *op. cit.*, page 292.

to environment; in man it contributes to creativeness. Intuition is present in creative synthesis, "a mental process in which results emerge that are not given through a mere summation of the elements involved."¹⁹

It is probably true that full dependence on intuition would force man to fall back to the level of existence of wild animals. On such a level of life those members who survive adjust remarkably well, but the toll taken in experimental adaptation is extremely high. Yet it can be asserted with reasonable assurance of accuracy that without intuitivism there would be no great works of art, literature, or music, and but a few crude inventions instead of the rich accumulation that civilization now enjoys. Creativeness thrives on wholeness of experience, and every analysis of the achievements of those whose creations have enriched life shows a high component of intuitive feeling and imagination.

Much of the mental activity involved in executive experience is analytical. The necessity for cold, matter-of-fact, objective analysis has been emphasized throughout this book. There is need, however, for synthesis which goes beyond the mere putting together of the product of analysis bit by bit. This means that some of the fervor, warmth of perception, intuitive groping, imaginative insight, disregard of conventional restraint, and insatiable search for understanding of the creative artist must be present in executive behavior if achievement is to rise above the commonplace.

Unless emotion is too severely restrained the capacity for intuitive response will develop naturally. On the other hand, if given free play, intuitivism will lead to impulsiveness of judgment. The soundest advice that can be given is (1) cultivate intuitive capacity, (2) do not trust intuitive judgment without examining conclusions in the light of other information, (3) guard against forms of self-deception listed on pages 308-311, (4) beware of strong emotion but be equally reluctant to act forthright as a result of conclusions

¹⁹Warren, *op. cit.*, p. 64.

reached through cold logic totally devoid of feeling, (5) beware of intuitivism if you are emotionally immature as indicated by the scale on pages 305-306, if you are emotionally unstable as measured by the stability scale on pages 314-315, if you are aware of emotional conflicts in any of the fields designated on pages 318-319, and if you do not rate favorable on the executive attitude scale on pages 323-325, and (6) beware of intuition based on meager experience.

The Executive as a Co-ordinator

THE EXECUTIVE IS RIGHTLY LOOKED UPON AS A PRACTICAL MAN; seldom is he considered as being somewhat of a philosopher. In fact, the executive is usually described as being quite opposite in nature to the philosopher. Yet if we accept Matthew Arnold's definition of a philosopher as "one who sees life steadily and sees it whole," we find that it is a reasonably accurate, brief description of the successful executive. Like all other terse phrases, however, it fails to describe fully either the philosopher or the executive; it fails to point out an important distinguishing difference. The philosopher must make articulate that which he sees so that others may know; he must explain, whereas the executive must act upon his observations. Thus the executive parts company with the philosopher, but the two have much in common.

CO-ORDINATION AS AN EXECUTIVE FUNCTION

A keener realization of the need for breadth of view, sound ideals, and philosophical sagacity would have saved the nation, within recent years, from the ills of cocksure stupidity. This observation applies equally to executives in industry and executives in government. Both industrial and governmental leaders have clearly shown inability to co-ordinate the forces with which they were dealing. More than that, they have usually displayed an alarming lack of understanding of these same forces. They did not see life steadily and did not see it whole; hence, they were as

bewildered and frightened as a small child who had wandered away from familiar surroundings. In seeking to overcome bewilderment the industrialist often seemed to be acting in response to frustrated conservatism, and the governmental leader wasted his energies and the resources of the nation in random trial and error. Neither displayed the foresight to anticipate changes, nor the ability to plan successfully in their efforts to cope with them.

It has frequently been said that the chaotic condition of recent years developed because co-operative action was lacking; thus the social group as a whole is blamed for the disruptions in production and distribution which almost resulted in a breakdown of our economic system. Such a contention is little more than the philosophy of futility; it fails to answer the important question as to why co-operation was not in evidence. Effective co-operation among members of a group is difficult—in some groups it is practically impossible—unless some individual mind is capable of co-ordinating the contributions of each member. In industry this co-ordinative function has usually rested with an individual who has authority carrying responsibility for decisions. In the period of most serious need on a national scale such an individual was not found as a leader; consequently, many economic problems of serious import to society await future solution. The lessons of recent years, taught by national failures, emphasize the importance of the executive as a co-ordinator; they also emphasize the need for executives with broader social knowledge than we have had in the past. This statement is believed to be true regardless of the pattern which we may follow in developing the social order of the future.

A SPECIALIST IN CO-ORDINATION

It has been said that the present is the day of the specialist. This is true indeed, but many people misconstrue the meaning of specialization. Today's specialist is frequently more broadly trained in the fundamentals relating to his work than was the

earlier, all-around man. The research chemist dealing with problems of combustion, or synthetic rubber, or a host of new industrial developments, knows more chemistry than did the general chemist of twenty-five years ago. The research engineer who developed alternating current tubes for radio use knew more physics than the electrical engineer in the days of Westinghouse. Likewise, the head of a department in a manufacturing plant knows more about manufacturing problems than did the builders of the original Ford motor. The specialist today must develop his specialization on a broad base of knowledge and understanding; he can afford to be a specialist because the specialization is well grounded in general knowledge.

In the broader sense, the executive is a specialist; he is a specialist in co-ordination. He must take the facts supplied by his research experts, and co-ordinate these facts to the best interest of the company as a whole. He must evaluate evidence and weigh facts one against the other so as to formulate plans of action. Co-ordination is not a science. Evaluating and weighing of factual materials is often a philosophical process. This is true because the evidence on which conclusions must be built is often available only in forms and terms that are not comparable by any scientific or mathematical process. Science ascertains facts; it forms no judgments of value or utility. When scientists attempt to find meaning in the relation of elements which are not comparable, they enter the realm of philosophy. Unfortunately, most scientists are not good philosophers. Industrial history provides numerous examples of scientists who were not good executives. It is in providing a sense of values, in exercising the ability to judge profitably courses of action, that the executive as a co-ordinator makes his greatest contribution.

SCHOOLS DO NOT DEVELOP CO-ORDINATING ABILITY

Since the study of science and scientific method does not necessarily develop the ability to co-ordinate subtly related and often apparently conflicting forces, modern education often be-

comes storehouse education. College textbooks are more often than not descriptive outlines rather than manuals of practice. Those which are manuals of practice are often handbooks that serve as crutches rather than aids in reasoning and problem solving.

The average college undergraduate is frequently heavily burdened with routine studies and often is handicapped by the spoon-fed training he has been subjected to in his secondary work. Secondary education, with its aims at democratization of knowledge, helps everyone to develop optimum educational status but does not develop outstanding ability to exercise judgment in those who have the capacity for it. In fact, many secondary school graduates have not even learned the technique of study for mastery, much less the knack of utilization and application. American educational traditions are such that most college undergraduates become hopelessly lost if asked to do any considerable amount of self-directed thinking. Present-day college classroom practices discourage the average student from exercising any form of management or even independent investigation in his alleged pursuit of knowledge.

Lacking the necessity for, and the stimulation to exercise management in his mental tasks, the college man of today turns his attention to extra-curricular activities for opportunity to solve problems in an independent manner. More often than not, in his extra-curricular activities he is again denied that opportunity. He must become a cog in an athletic machine directed by a mastermind; or, if he tries to express his thoughts in the school newspaper, he is restrained by traditional policy. Only in emergency situations on the playing field or in flying in the face of policy and tradition does he get an opportunity to display managerial talent. If management of extra-curricular activities were to be returned to undergraduates, unusual opportunities for developing coordinating functions might arise.

These comments are not intended as an indictment of college education; its merits are widely recognized and rewarded. Rather, it is an attempt to indicate how thoroughly experiences which might aid in the development of ability to co-ordinate and synthesize are excluded from college life. Neither curricular nor the extra-curricular activities of the majority of our universities offer as many opportunities as might be desired for the exercise of planful initiative and self-direction by students. Perhaps the repression of student management has grown out of unfortunate experiences arising from the display of poor judgment; however, it is difficult to conceive of any possible way to develop judgment without exercising it.

DEVELOPMENT OF POWER OF CO-ORDINATION

The development of the power of co-ordination is not as easy as acquiring the more simple attitudes and skills, but it follows some of the same rules. The fundamental importance of decision and judgment has been emphasized. In limited form these traits are universally necessary, but it is in the difficult task of co-ordinating material of a highly diverse nature that the executive meets his severest test. It is for that one reason alone that the successful salesman often fails as a sales manager or that the successful sales manager sometimes fails as an executive vice president. Too much specialization in one field frequently leads the specialist to place undue weight on the facts relating to the field of specialization at the expense of other considerations. By way of homely example it may be said that a tub can only be filled as high as its shortest stave. The task of the executive is to see the whole tub at once; whereas the specialist is concerned only with his own stave. No man can co-ordinate facts he cannot understand. An engineer who knows nothing of finance or sales strategy cannot hope to make wise decisions involving problems in these fields. It is a matter of economic tragedy that many companies have been wrecked because management was entrusted to an expert in finance or some other narrow field.

There has developed on the part of highly trained specialists a very dangerous point of view; namely, that their background gives them an exclusive right to judgments and opinions in their field. It is well and good to recognize the increasing importance of specialization, and no one should be guilty of decrying the function of the specialist. Specialists will, and should, increase in number and in the intensity of their efforts. The point which must be emphasized in relation to executive ability is that increasing specialization makes it imperative that more attention be given to the development and perfecting of co-ordinative functions. Where co-ordination is wisely directed the work of various specialists can be harmonized in such a way that each is an asset to the other.

The old adage that a chain is no stronger than its weakest link assumed that the links were connected. Specialists are the links, but these links can be welded together into an effective unit only by one who understands their relation to each other and the relation that each bears to the whole. Results obtained from the application of executive aptitude tests emphasize the importance of balance of traits and breadth of information; therefore, support the contention that co-ordination is an executive requirement. Such tests in their present form do not measure co-ordinative capacity; therefore, further work is needed to perfect them. When they have been perfected, objective measures and standards will be of great value not only in selecting prospective executive material but also in clarifying the executive's personality problems so that he can strengthen his weak points. But even without such information, it is safe to hazard the opinion that the greatest weakness to be found among executives is the capacity to co-ordinate.

APPLICATION OF CO-ORDINATING POWERS

The ability to co-ordinate forces is present to some extent in all forms of management. History is a contradictory story of man seen at one time as a victim of chance and responding to

circumstances beyond his control, and at another time co-ordinating forces to attain certain ends. In government and politics, single individuals, small groups, or the masses, have sought to shape destinies through co-ordination of forces. Usually such efforts have been worthy in motive since they were directed toward the general social good, but the execution of such efforts has all too often been unsuccessful. In industry a large number of individuals and small groups have striven for selfish gain through co-ordination of certain forces.

Both political and industrial leaders have sought to use co-ordinative effort for purposes of exploitation. It is much easier to use co-ordinative powers in exploitation than to use these powers in a constructive and socially creative manner. Furthermore, such co-ordinative effort is usually more highly motivated than co-ordinative effort directed toward social ends. There is no denying that exploitation is productive; however, the profits of exploitation are usually unevenly distributed. In politics this condition has led to revolt and governmental changes. Within recent years economic revolt has become a more constant threat. As a consequence industrial leaders have sought to distribute the profits of exploitation more widely and liberally. It seems likely that future conditions will force executives to make less use of exploitation for private profit, substituting therefor more socially constructive forms of co-ordinative effort. Recent restrictive legislative action points in that direction.

PRODUCTIVE CO-ORDINATION THROUGH EXPLOITATION

To co-ordinate is usually taken to mean bringing factors into common action in such a way as to create harmonious adjustment or functioning. In a sense, therefore, co-ordination is the concentration of forces to achieve a purpose. In the early periods of industrial expansion in America executive talent was utilized in a socially destructive, but an individually profitable, manner. That such an error could not continue indefinitely was inevitable, but this was not apparent to many persons. A time arrived, however,

when conservation became necessary because of threatened exhaustion of resources. Exploitation has gradually given way to more constructive forms of co-ordinative effort. Following the period of exploitation of resources in industrial management came other forms of exploitation. Without attempting to tabulate these forms of exploitation exhaustively or in historical sequence they may be listed as follows: (1) exploitation of natural resources; (2) exploitation of labor; (3) financial exploitation; (4) exploitation of science and invention; (5) exploitation of markets.

In its basic meaning, exploitation implies the utilization of, or obtaining value from, a particular source; in a derivative sense, to exploit means to make use of for one's own advantage or profit. In the use of exploitation methods for individual profit, productive co-ordination is most certainly present. However, exploitation for individual or limited group profit is not always socially constructive and seldom creative. Exploitation may be directed toward social ends, and the demands of the future are likely to require constructive and creative co-ordination.

EXPLOITATION AND FREE ENTERPRISE

Free enterprise, which characterized early business activities in America, encouraged exploitation. The philosophy of *laissez faire* was accepted and its precepts practiced. No governing forces regulated business. Expansion and development were so rapid that even the necessary minimum regulations for ordinary conduct of business life were not forthcoming. "Business leaders, bursting with enterprise under their new-found 'freedom,' exploited natural resources in ways which were often wasteful and exploited other human beings within the structure of the newly developed business organizations not merely in ways which trenched on what may be called their rights, but in ways which at times even impaired their economic efficiency."¹

¹From an address delivered by Edwin G. Nourse, Director, Institute of Economics, The Brookings Institution, on "The Nature and Future of Private Enterprise" at the 46th Congress of American Industry, New York City, December, 1941. Published in pamphlet form by the National Association of Manufacturers, 1942. p. 6.

The early period of exploitation of resources roughly covered the years between the Revolution and the Civil War. Opportunities of the pioneer who explored and settled new lands and discovered new sources of raw materials were widespread. Those who engaged in business enterprise made gains because of confident self-assertion and ruthless vigor in the pursuit of profit objectives. Exploitation in various forms continued to be characteristic of business enterprise from the beginning of the Civil War to the turn of the present century. The development of capitalistic enterprise, which was well underway by the time of the first World War, went forward with unforeseen violent changes in social organization, and by 1930 had given us a form of corporate capitalistic enterprise which, although admired at home and abroad, gave rise to a most troublesome period of depression—the most destructive in human values that the world had ever experienced.

The story of American economic history prior to 1900 is one in which exploitation and waste of both natural and human resources assumes a place of major importance. "Many of these wastes were of the sort which business itself perceived that it could not afford once they showed themselves in acute form. Hence owners began to take measures for conservation of the mines and forests from which they draw materials; employers began to protect the health and morale of workers upon whom they must rely for efficient operation. Group enterprise took over certain responsibilities for its members which had been threatened with being 'lost in the shuffle' as individual enterprise gave way to corporate organization."²

Exploitation, operating through the private enterprise system, has frequently been socially beneficial regardless of the fact that the primary motive was that of profit for the exploiters. The American public has, within the period of the present generation, enjoyed higher wages and wider and more generous distribution of manufactured products than any group of persons in

²Nourse, *op. cit.*, pp. 7 & 8.

the world. The benefits of mass production in the form of higher wages, greater sources of supply of consumable products, and lower prices have been passed on to the public as a matter of policy by American enterprise. As a consequence the "American Way" has become the envy of the rest of the world despite the shortcomings which were acutely brought home to us during the period of depression and which are constantly being held up for censure by propagandists favoring systems other than private enterprise. Because we have become keenly aware of the shortcomings of the private enterprise system, it will be necessary for the executive of the future to give careful consideration to social justification of all of his policies.

No one who reads the signs and omens in the economic world today can fail to realize that the future of private enterprise hangs in the balance. Among our fellow citizens, there is a substantial fraction of persons of influence and sometimes in authority who are profoundly convinced that the system is "all washed up." They are busy planning the steps by which it is to be displaced. They are confident in their faith in a new system, indefatigable in their labors to promote it, contemptuous of the failures of the present system, debonair in their willingness to assume the responsibilities of running a new order. It is not to be supposed that private enterprise can write a dictated peace with these formidable opponents. It must be a negotiated peace. The officials of private enterprise will have to curb their pride and pocket their impatience while they go through lengthy palaver with representatives of other groups who, they are sure, are stupid and selfish, fantastic in their objectives, and inept in their methods. They will have to endure or refute similar charges about themselves. Private enterprise must always do business with the public in the marketplace. That is the essence of free bargaining. In a democracy it must always do business with the public representatives in the White House and the Capitol and the state legislatures. If the struggles and blockades of industrial warfare are going to give way to a productive peace of private enterprise, its terms will not be drawn to the complete satisfaction of business management. There must be some kind of compromise which gives positive recognition to the fundamental aspirations of all the parties. And we must look to the painful but necessary process of perennial revision and supplementary negotiation to keep

our economic life moving forward as well as we poor humans are able to make it. One often hears the demand that we shall have a "government of laws or principles and not a government of men." This is sound doctrine in the business field not less than the political field. Our industrial life has grown up under hard-hitting individual rulers who felt they "knew all the answers," and did not propose to defer to broad policies or principles that might cramp their style. One of the greatest contributions that private business leadership could make to the future of the enterprise system would be to participate in the progressive formulation of principles under which it proposes to discharge its responsibilities to its several classes of clients—consumers, workers, capitalists—in the future. I sympathize with the businessman's insistence that government declare itself as to its intentions relative to the future of private enterprise, but I submit that it will be easier for government to make such a commitment, harder to avoid making it, if there is a clearcut declaration of private enterprise's intention of providing for the material needs of the nation. Thus far business has relied too fully on the negative principle, "I want to be left alone."

If private business is to be left in possession of the field of economic enterprise, it must exercise its broad public responsibility through professional management of individual corporations. Thus management is confronted by a dilemma, because its responsibility to "keep 'em rolling" seems at times to conflict with its duty to keep capital intact, to make profits, or at least avoid losses.³

EXPLOITATION OF RESOURCES

Resort to exploitation is made because of the ease with which full responsibility for management may thus be escaped. No matter how inadequate management may be in other respects, exploitation usually provides profits. As long as these profits are forthcoming other faults of management are overlooked. Any person could become wealthy if he had a gold mine or an oil field in his backyard and was unmolested in his efforts to garner profits thus brought to his doorstep.

There are numerous problems relating to resources with which the executive should be familiar. In the past it has been

³Nourse, *op. cit.*, pp. 14-15.

necessary for him to be familiar only with those problems relating specifically to the needs of his particular corporation because national policies had not been formulated. However, we are rapidly approaching a period in which national policy will limit freedom of action by any particular corporation or group of producers. Government regulation to enforce national policy has already been tried experimentally by the New Deal. The fact that some of these policies failed of their purpose and some were subjected to public ridicule because of the fallacies involved does not remove the probability that enforced policies relating to resources will become necessary for national welfare. The extent to which enforced policies become necessary in wartime has been made acutely evident by the activities of the War Production Board, Office of Price Administration, and Office of Economic Stabilization. The necessity for planned utilization of resources will not be removed by a return to peace time conditions. It is even possible that planned utilization of resources may be necessary on an international as well as a national scale.

The United States remains one of the world's richest nations in natural resources. However, ease of acquisition has been significantly reduced when the present is compared with the expansion period of American economic history. With two billion acres of land area, one-fifth of which is valuable crop land, we have an almost inexhaustible source of food for the future, and have attained world leadership in production of such crops as wheat, oats, tobacco, and cotton. One-fifth of the acreage in the United States is pasture land which provides a source of food for livestock, and about one-fifth of our acreage is still covered by valuable forests. However, early exploitation has made our tillable and pasture land less valuable and we are now confronted, as a nation, with the problem of conservation and restoration of fertility in many areas. The ruthless destruction of timber lands has, to some extent, been checked by conservation policies inaugurated during the administration of Theodore Roosevelt, and re-

forestation is beginning to be more seriously practiced. Much valuable land can be reclaimed by drainage, irrigation, or clearing of cut-over timber lands. Despite our wealth in productive lands the National Resources Board has recommended that seventy-five million acres of land be withdrawn from active use for the purpose of repairing damage that has been done by careless exploitation.

In availability of important minerals the United States is believed to have adequate resources in aluminum, barite, china clay, copper, fluorspar, gypsum, iron ore, magnesite, nitrates, petroleum, phosphates, pyrite, soapstone, sulphur, coal, and zinc. We have inadequate resources in antimony, asbestos, chromite, lead, manganese, mercury, nickel, tin, and tungsten, although our friendly neighbor, Canada, would be able to supply us with asbestos and nickel. We are also in an extremely favorable position with respect to natural gas and developed and undeveloped water power.

Among essential products, in natural form, to which we were denied access by war, the one of which we became acutely conscious was rubber. It is now believed that synthetics will provide for our needs as soon as productive capacities can be developed. It is probable that the experience with rubber will encourage further search for alternatives for other products. Probably no executive can fail to be conscious of the importance of research directed toward the development of alternatives and substitutes after the object lessons with which we have been provided as a consequence of war.⁴

The preceding paragraphs call attention to the broader viewpoint which it is believed executives must have in order to properly understand the functioning of a particular corporation in relation to national needs as a whole. It is probable that no pro-

⁴Statements relating to natural resources contained in this section are based on information found in *Enterprise and Social Progress*, National Industrial Conference Board, 1939, pp. 3-24.

ducing organization in the future will be permitted to proceed independently of national welfare.

EXPLOITATION OF LABOR

The exploitation of virgin wealth requires little more executive ability than the capacity to recognize values and gain possession of sources of wealth. Exploitation of labor in certain periods of economic history has been analogous. Lacking easy access to resources which could be marketed in unmodified form, the entrepreneur looks about for a source of raw material which can, when slightly changed, be disposed of readily. It is still possible to profit greatly without a ready supply of low-cost raw materials if a cheap way of converting raw materials can be developed. Since human efforts can frequently be used in converting materials, it is a most natural temptation to exploit labor. History provides examples of such exploitation ranging all the way from slavery to the sweatshop and in slightly higher form in subsistence wage industries. Labor, through its own enlightenment or at the insistence of aggressive leaders, has evolved weapons to use against the entrepreneur, and has, as a matter of self-interest, demanded higher wages without regard to cost of raw materials or profits. The power of collective bargaining once sensed by those who contribute human energy to the transformation of materials has been developed by labor as a protective device. Laboring groups have organized to deal collectively with corporate organizations which represent collective units of capital. Just as corporate organizations have looked upon public authority and governmental regulation to protect collective property rights, labor has sought and obtained governmental protection of collective bargaining rights. While protecting itself from exploitations by collective capital, labor has not always been able to protect itself against exploitation by its leaders, and in some instances it may be quite possible that the suppliers of capital are being or will be exploited by organized labor.

Resistance by labor to exploitation came early in America. However, the greatest progress was made during the era of the New Deal. Reputedly the first effort of workers to coerce management occurred in 1786 when a group of Philadelphia printers struck for a weekly wage of six dollars. In the same city five years later carpenters refused to continue working, demanding a twelve-hour day with an hour off for breakfast and another for dinner. It is not known whether the printers' demand was met or not, but the carpenters were not given a ten-hour work-day. The ten-hour day became an issue in Philadelphia again in 1822 and resulted in the formation of local unions which, by 1834, had attained a combined membership of three hundred thousand, chiefly centering around such cities as New York, Philadelphia, Boston, Baltimore, Cincinnati, and Louisville. It is known that joint conferences between workers and employers occurred during the period from 1830-1840, along with mass meetings, strikes, and riots which resulted in the ten-hour day for some of the mechanics' unions.

For a brief period following the depression which began in 1837 labor lost many of its gains, and many unions went out of existence. With a return to prosperity union activity again became prominent. This pattern of relapse during depressions and gains during periods of prosperity continued throughout the years which followed. However, what might be termed a national labor movement did not make much headway before the Civil War. Such strength as was gained in the post-Civil War period was dissipated by the depression of 1873-79. By 1866 there were almost a million union members joined together in a national organization known as the Knights of Labor. The American Federation of Labor came upon the scene in 1871 and became the dominant central organization when internal dissension resulted in the disintegration of the Knights of Labor. During the latter part of the nineteenth century the high spots in the history of organized labor chiefly concerned attacks upon labor by employers' asso-

ciations, strikes, lock-outs, and riots. However, collective bargaining made headway in certain industries which included iron, coal, shoemaking, printing, building, and railroad transportation.

Labor's first claim to significant union representation became justified during the early part of the twentieth century; by 1916 unions could boast of a membership of nearly three million. The A. F. of L. continued to be the leading national organization and successfully survived attempts of a radical left-wing to promote the interests of the I. W. W. Regardless of growth in numbers the greatest gains in public support through government action came during the period of the first World War. The depression of the late '20's and early '30's appeared for a time to have sapped labor's collective power, but a new lease on life came with the election of the first New Deal. By 1935 it was estimated that there were over four million union members in the country. The A. F. of L. failed to rise to the opportunity to meet the need for a new kind of labor organization, and, as a consequence, officers of eight A. F. of L. unions, representing nine hundred and forty thousand members, met in Washington in 1935 to form the Committee for Industrial Organization. It was assumed that the Committee would function within the framework of the A. F. of L., but conflicts arose, and, in 1938, an independent federation known as the Congress of Industrial Organizations was established. Membership in the C. I. O. increased rapidly with the result that by 1941 it could claim a membership equal to or greater than the A. F. of L., a combined total of some eight or nine million workers. If, to the alleged membership of the leading national organizations is added the outside and independent groups, the total becomes ten or eleven million, or approximately one-fourth of all wage and salary workers in the United States.⁵

The pattern of present labor rights, as covered by national legislation and supplemented by state codes, has grown out of

⁵Historical and statistical data on the development of labor organizations has been gleaned from: Mills, Harry A., ed. *How Collective Bargaining Works*. Twentieth Century Fund, 1942. pp. 3-30, pp. 871-907.

government policy set by the National War Labor Board which was appointed to mediate labor disputes during the first World War. The principles set up by the National War Labor Board were incorporated in the National Industrial Recovery Act, the labor sections of which have been superseded by the National Labor Relations Act. These are the ones which currently govern executive policies in dealing with labor problems under existing conditions:

1. The right of workers to organize in trade unions and to bargain collectively, through chosen representatives, is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the employers in any manner whatsoever.
2. The right of employers to organize in associations or groups and to bargain collectively, through chosen representatives, is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the workers in any manner whatsoever.
3. Employers should not discharge workers for membership in trade unions, nor for legitimate trade union activities.
4. The workers, in the exercise of their right to organize, shall not use coercive measures of any kind to induce persons to join their organization, nor to induce employers to deal therewith.⁶

LABOR'S POINT OF VIEW

Resistance to exploitation alone in the past has failed to make labor's gains permanent. It is possible that present-day labor leadership will evolve a philosophy and develop plans which will protect gains now evident. The following excerpts from a book prepared by a consulting engineer and the chairman of the Steel Workers Organizing Committee indicate that thought is being given by unions to wage policies and plans.

Because a man's pay determines his share of the good things of life it is easy to understand why he is constantly striving for better wages. On the other hand, to the manager wages cannot be separated from output because the amount done for a given wage determines the labor cost per unit of production. It is not difficult then to see why

⁶Mills, *op. cit.*, pp. 901-902.

in a competitive market he opposes wage increases and constantly seeks ways and means of increasing the productiveness of each employee.

These opposing points of view, which involve not only rates of pay but rates of production as well, often lead to controversy between employer and employee. Fortunately it is possible through an analytical treatment of the problem of wage payments to separate much that is factual from the obviously controversial elements and thus to eliminate many of the initial causes of irritation.

Primary elements that can be settled on a factual basis include, for example, such points as the time required to do a job; the fatigue involved in operation; quality requirements; means of reducing exertion; defensible rewards for accomplishment; the importance of one job as compared with another; and working conditions which affect the well-being and therefore the production and earning power of employees. Irregularities in wage rates also may be thus eliminated. Settlement of these problems largely on the factual basis, determined by joint union-management consideration and research, reduces collective bargaining about wages to such basic elements as general increases or decreases in rate and a system to be used in remunerating workers. There is no one wage system or method of computing wages generally conceded to be the best. The goal is an adequate and assured annual income. Even among the unions there is a wide difference of view as to the form the wages should take under existing conditions. The fact that it is necessary to analyze work character as an aid to optimum production does not mean that one method of compensation is to be preferred to another. The kind of product to be turned out must necessarily influence the wage scheme. Perhaps a majority of workers today given free choice would prefer the daily wage with measured production. Variety and experimentation are highly desirable for the ultimate wage system is probably not yet born.

The amount of money workers' pay involves is inevitably gauged, first or last, by the value of the work he has done. It is a fundamental American principle that reward for services must depend upon value received yet so obvious a principle is often overlooked. On occasion a manager will gloat over the fact that it is no loss to him when a worker loses his "own time" because of delays and early quitting. On the other hand workers have been known to boast of "soldiering" or purposely slowing down on a job. Actually the time lost by workers and not paid for directly is paid for indirectly by the company because the day

or piece rates must be higher to provide the expected weekly wage. "Soldiering" may react on both the manager and the worker through increasing labor costs that cannot be passed along to the buyer in higher prices thus creating avoidable losses which may curtail plant activity.⁷

The co-ordinative problem of the executive in relation to wages is obvious. From the worker's point of view wages are high or low depending upon the extent to which the worker can purchase the things which he desires with the wages he receives. From the employer's point of view wages are high or low depending upon the productivity of the worker. From an economic point of view wages must come from money paid by customers for the employer's product or service. In general, wage increases must be absorbed through increase in production efficiency resulting from modification of methods, increase in productivity resulting from increased effort or efficiency of the worker, reduction in cost of the materials entering into the product, or reduction in supplementary overhead, administration, and distribution costs. Through understanding and control of the factors involved the executive arrives at conclusions as to the wages which can reasonably be paid and in turn conveys such information to workers or their representatives. He is able to foresee the adjustments which must be made if a proposed modification of wages is being considered.

After the wage rate has been determined it is the executive's responsibility to co-ordinate other factors which make possible payment of the wage, make possible continuity of employment, and make possible the earning of a profit. Thus a challenge is placed squarely before the executive to demonstrate the superior capacity for management which is implied in the philosophy of free private enterprise. The representatives of management are, in a sense, placed in a position which makes it necessary for them to demonstrate the benefits of free private enterprise, or the worker

⁷Cooke, Morris L. and Murray, Philip. *Organized Labor and Production*. Harper, 1940. pp. 109-111.

will be enticed by rosy promises to support some other system which, the workers are assured, will achieve the ends that they believe they have a right to expect management to achieve.

FINANCIAL EXPLOITATION

Exploitation of natural resources and labor are historically very old. These forms of exploitation still exist in many parts of the world, but in America they are fast disappearing or are taking on a less objectionable form. There have been notorious cases of financial exploitation through despotic taxation and control of coinage. Such forms of exploitation were no longer the fashion until the return of planned economies in Europe following the first World War. Financial exploitation through taxation and budgetary control has been threatened in America, and some students of government finance believe that we are still facing that risk. War conditions make it difficult to discuss this question rationally at present; therefore, it is possible to do little more than quote comments of experts in public finance and await a return to normal times to examine the problem more clearly.

Monetary stability is important for the operation of private enterprise, since there are involved many long-range commitments which are expressed in terms of the standard monetary unit. The investor who is asked to take not only a long-odds chance, but a long-range chance on the outcome of a venture knows that there is no way of protecting himself against the ordinary business risk, but he is entitled to assurance that there will be no official skulduggery with respect to the monetary unit in terms of which his calculations are made. If the odds against success are five to one, he will take a chance, if the profit in prospect be large enough. But if the chances are also five to one that government may meantime debase the dollar, the total odds against him become ten to one, or even more, according to the degree of deflation. . . . Taxation of business which represents a fair price for useful government services is not a burden on industry, for government thereby supported gives an equivalent value in its contribution to the productivity of business. Taxation beyond the point at which a fair value equivalent in services is given is burdensome since government

is then taking out of the productive system more value than is returned to it. Methods of taxation should not be such as will deplete the capital fund, or impair the incentive to increase the fund. Specifically, this means that there is danger that present levies on incomes and estates are a method of survival by "eating the seed corn." They tend to create an unemployment faster than it can be relieved by public spending. Any base for the levy of taxes on business should be flexible enough to permit and encourage the accumulation of resources during good years to be used in sustaining business operations and employment during lean years. Today, every business concern in America should be permitted to earmark a liberal proportion of current profits, free of all taxes, as a depression reserve to be drawn upon during the post-war readjustment or depression period.⁸

The statements just quoted reflect a fear of financial exploitation of private enterprise by government and present the views commonly held by representatives of management. Perhaps the fear of exploitation of private enterprise by government is made more acute because of the fact that some large corporations, their bankers, and legal associates have indulged in forms of financial exploitation that are socially reprehensible. Many corporations have been organized and have been operated at a profit without resort to financial exploitation. Some corporations which were developed through exploitation of investors have later proved profitable to a second generation of investors. Unfortunately, however, the flotation of securities has often been more profitable to promoters of certain types of industrial enterprises than have the business profits to the investors. New forms of financial exploitation were invented with such amazing rapidity following the first World War that it became necessary to provide legal regulation. Blue Sky Laws, which were passed by many states, failed to check the activities of manipulators; therefore, public protection required national legislation which now exists in the form of the Securities and Exchange Law. The existence of such

⁸Adapted from statement prepared by Harley L. Lutz, Professor of Finance, Princeton University, and published in *The Tax Review*, Tax Foundation, New York, July, 1942.

a law is strong testimony to the fact that given privilege and financial power some individuals cannot resist the temptation to enter into socially detrimental financial exploitation.

It is generally believed that speculators and investment bankers have indulged in financial exploitation to a greater extent than business executives. However, there have been numerous instances in which those responsible for the management of business enterprises have participated in financial deals which were more noteworthy for their audacity than for simple honesty. Many cases might be cited, but one is sufficient to illustrate the point.

A large oil corporation authorized by articles of incorporation to issue 5,500,000 shares of common stock had outstanding, less treasury stock, in 1928, approximately 4,370,000 shares. Being in need of additional funds for expansion of operations the company, through its board of directors, authorized the chairman of the board to arrange with a well-known speculator for the underwriting of 1,130,000 shares of stock.

The chairman of the board is alleged to have discussed the matter with the stock market operator and to have arrived at an agreement which would make possible the marketing of the shares in open market through the co-operation of two investment banking firms. One million shares of stock were then sold in four blocks: 250,000 to the operator, 250,000 to the chairman of the board, and 250,000 to each of the two investment banking organizations at thirty dollars per share. The chairman purchased the additional 130,000 shares in order that he might return 125,000 of them to the treasury of the company to fulfill an obligation dating back to the 1923-24 investigation by the Senate Committee on Public Lands and Service relating to leases involving naval oil reserves. The company received \$33,900,000 of working capital from the deal and eventually recovered the 125,000 shares owed it by the chairman of the board. In view of market prices at the time this appears to have been a fair and equitable transaction, and it probably saved the company considerable expense which

might have been involved in marketing its own securities. The deal had further merit in that the company was relieved of the necessity of issuing fixed obligations in the form of preferred stock or bonds at high interest rates. Up to this point there is little evidence that exploitation of the company, its stockholders, or the public occurred; however, transactions subsequent to the purchase of the 1,130,000 shares of stock presents a rather distasteful picture.

Two marketing syndicates were formed to dispose of the stock. The syndicates bought and sold the company's shares in open market in order to encourage buying by the public, and the million newly issued shares were gradually unloaded. These transactions were engaged in by the syndicates over a period of approximately nine months. In order to dispose of the million new shares the syndicates traded in approximately 2,500,000 shares. (presumably through the Chicago and New York Stock Exchanges). As a result of the trading activities, profits realized allegedly amounted to approximately \$12,400,000.

The transactions involving the buying and selling of shares were directed by a cousin of the speculator who participated in the syndicate. The sales and purchases were cleared through a firm holding membership in the New York Stock Exchange. The operations were described by the referee in the case in the following manner: "Stripping the juggling operation of all 'beating around the bush' characterization, it was a gamble. The operator who directed the market transactions admits 'that the operations were designed to stimulate the market by keeping it active in order to whet the public appetite for the stock. He was there, he declared, ready to feed the public, to supply the stock to the public when they wanted it, and to take it from the public when they wanted to dispose of it.' "

The amazing aspect of the entire proceedings is the fact that the chairman of the board, members of the board of directors, and friends and relatives of the chairman and members of the board

participated in the profits of the syndicate, along with the market operators and investment bankers who, incidentally, were also bankers for the corporation.

Certain stockholders later claimed that profits made by the syndicates over and above the price paid to the company for stocks were earned at the disadvantage of the corporation issuing the stock, and suit was brought to recover. Defendants, involving those who profited from the syndicate activities, offered to settle for \$675,000. The matter was referred by a justice of the Supreme Court of the State of New York to a referee who, in turn, recommended acceptance of the offer of settlement made by the defendants. At present writing settlement has not been made, but that is not a matter of concern to us here since we are interested primarily in the exploitative aspects of the case.⁹ Persons other than stockholders also interested themselves in the transactions for in addition to being the basis for court litigation by stockholders, testimony on the deal figured prominently in the Pecora Investigation which led to the formulation of the Securities and Exchange Law.¹⁰

Although it appears that transactions involved in this case were within the law at the time, they represent a form of financial exploitation which damages a corporation in the public mind. The position of the executive of a corporation in such proceedings is difficult to justify. The participation of members of the board of directors of the company in a large-scale poker game may not challenge integrity, but it raises questions of ethics, morals, and social responsibility. The chairman of the board of directors testified before the Pecora Investigation that members of the board did not know they would participate in market manipulation profits when the stock was closed out to the syndicate. He further indicated that he "cut them in" because he merely wished to give

⁹Bing, et al. Supreme Court of the State of New York, Index No. 34356, 1936.

¹⁰Pecora Investigation, p. 3725.

them and others selected to participate an opportunity to make money.¹¹

Comments by the referee in the case reflect some of the unfortunate attitudes which have brought public reaction against financial exploitation. The following statements were selected at random from the referee's recommendation to the Supreme Court of the State of New York dated October 24, 1942.

Although these bounties were unquestionably large, there is nothing very uncommon about the generous 'hand-outs' to selected, favored, persons by those making easy money. It is a human, natural impulse, and quite in keeping with the tempo and temper of the times. . . . If no impropriety adhered to the acquisition of the stock in the first instance by the first participants . . . then surely what those participants did with their acquisition is, to put it bluntly, none of our business. Nor, in that event, would the plaintiffs be concerned with the worthiness of the recipients of the largesse. . . . If anyone was "fleeced," it was the public. . . . In retrospect, the engineering of this raucous Wall Street music of 1928, though today it would be out of tune with stock market practices according to the score of the Securities and Exchange Law. . . . The transaction was not tainted with fraud.

Legal defense of examples of financial manipulation participated in by representatives of a corporation management, investment bankers, market pools, speculators, and firm members of the stock exchange does not satisfy public opinion. The enacting of the Securities and Exchange Law demonstrated that fact. True, the executive must concern himself with financial problems and himself decide to act within the limits of his judgment. But his judgment should take into consideration the stockholders to whom he is responsible, the suppliers of funds other than stockholders, the workers, and the public. The problem of co-ordination is one of properly balancing the interests of the various parties involved,

¹¹Pecora Investigation, p. 3300.

not one of planning and directing a manipulative scheme which will bring profit chiefly to himself and friends.

EXPLOITATION OF SCIENCE AND INVENTION

The exploitation of inventions and discoveries has been characteristic of industry since the Industrial Revolution. In fact, it was the invention of machines and the application of mechanical power to them that started the Industrial Revolution in England. The development of an international market for American products following the War of 1812 resulted in an expansion of industrial activity and consequent use of the products of inventive minds. Since that time the exploitation of inventions and scientific discoveries has resulted in constant changes in methods of industrial production in which England, the United States, and Western Europe have led the rest of the world.

Probably no form of exploitation has brought more universal benefit to mankind than the exploitation of science and invention. The genius of one man alone, Thomas A. Edison, has contributed immense benefits to American citizens. During his lifetime 1,099 patents were issued to Edison, and it is estimated that \$26,000,000,000 in wealth in the United States alone has grown from his ideas. It is further estimated that \$7,000,000,000 of our annual income arises from employment which Edison's inventions have made possible and that one man in nine in industry and transportation owes his job to this inventive genius.¹² Contributions to progress equivalent to those made by Edison may have been attained by other inventors; there is no ready way of measuring the full effects of any invention. Seventy-five scientists, industrialists, and statesmen were asked in 1940 to select, in connection with the celebration of the 150th anniversary of the United States Patent Office, what they considered to be the greatest American inventions. The inventions selected were:

¹²From an address by Robert L. Lund broadcast in connection with the National Modern Pioneer Banquet, February 26, 1940.

TABLE 13¹⁸

INVENTION	INVENTOR	DATE PATENTED
Cotton Gin	Eli Whitney	March 14, 1794
Steamboat (Commercial)	Robert Fulton	February 11, 1809
Reaper	Cyrus H. McCormick	May 21, 1834
Telegraph	Samuel F. B. Morse	May 20, 1840
Vulcanization of Rubber	Charles Goodyear	May 15, 1844
Sewing Machine	Elias Howe, Jr.	September 10, 1846
Typewriter	C. L. Sholes	June 23, 1868
Air Brake	George Westinghouse, Jr.	April 13, 1869
Telephone	Alexander Graham Bell	March 7, 1876
Phonograph	Thomas A. Edison	January 27, 1880
Induction Motor	Nikola Tesla	May 1, 1888
Production of Aluminum	Charles N. Hall	April 2, 1889
Linotype	Ottmar Mergenthaler	September 16, 1890
Motion Picture Projector	Thomas A. Edison	March 14, 1893
Airplane	Orville & Wilbur Wright	May 22, 1906
Three-Electrode Vacuum Tube	Lee de Forest	January 15, 1907
Thermosetting Plastics (Bakelite)	Leo H. Backeland	December 7, 1909
Oil Cracking	William M. Burton	January 7, 1913

A somewhat different list of names appears among the leaders of American invention and science in a list of fifteen selected as "pioneers of the past" by a committee of scientists under the chairmanship of President Compton of the Massachusetts Institute of Technology. Those selected as worthy of designation by the title, "pioneers of the past," were Benjamin Franklin, Eli Whitney, Cyrus H. McCormick, Charles Goodyear, Samuel F. B. Morse, Richard March Hoe, Elias Howe, Alexander Graham Bell, George Westinghouse, Ottmar Mergenthaler, Thomas A. Edison, George Eastman, and Wilbur Wright.¹⁴ In the field of science the genius of men like Helmholtz, Pasteur, Ampere, Kepler, Galileo, Mendel, and a host of others has not only been exploited, but popular recognition of the work of these men is lacking. In many instances the inventor and scientist have not been properly rewarded; the question of whether they are ever properly rewarded is debatable. The inventor and the scientist, however, have not complained. Their knowledge of having been

¹⁸"Inventive America." National Association of Manufacturers, 1941.

¹⁴"Inventive America." National Association of Manufacturers, 1941. pp. 4-7.

of service to mankind, along with the satisfaction of creative urges, has been sufficient to motivate them.

Briefly summarized the benefits of science and invention have been stated as follows:

Between 1900 and 1930, the period of most intensive development of machinery in this country, while population increased 62 per cent, the number of jobs increased 68 per cent.

Eighty-four per cent of all machines invented are designed to create entirely new products, render new services or to improve old products or services and thus increase employment.

One-fourth of all persons employed in America today hold jobs depending upon 14 industries unknown in 1870.

Over 100,000 new products have appeared on the American market since 1900.

Most significant of all is the fact, attested by government authority, that employment *today* is nearest normal in the most highly mechanized industries and unemployment is greatest in the least mechanized.

If you are looking back with regret to the days of 1929, and feel that the United States is getting old and that its future is behind it, here are a few of the things that science and industry have created in just this past ten years.

Passenger air traffic across both the Atlantic and the Pacific.

Thirty passenger, four-engine sleeper planes with 2,000 horsepower motors.

One hundred octane gasoline.

New methods of oil refining and processing which will call for the spending of many hundred millions of dollars.

New textile fibres, in many ways better than nature's fibres.

Synthetic rubber, better than natural rubber for many uses.

New plastics creating already a 200 million dollar industry.

Sulphanilamide and sulphapyradine, drugs that combat deadly germs.

Synthetic vitamins and hormones, once products of life processes, now just new organic chemicals.

Neon type lighting, requiring a fraction of the current now used.
Television.

Air conditioning.

Colored moving pictures.

Better safety glass made with new plastics.

Fibre glass for insulation, glass textiles, and a hundred other uses.

Streamline, diesel engine, passenger trains, made of new steels and aluminum.¹⁵

In addition to the charge that inventors have not always been rewarded properly for their genius, it has also been charged that the benefits of invention have not been made available to anything like the total population of the country and that technological change resulting from the development of new methods and procedures has created conditions which resulted in hardship for displaced workers. So keenly have certain men of philosophical bent felt on this question that they have argued for a moratorium on inventions and technological changes.

In considering the displacement of workers it has already been pointed out that between 1900 and 1930 the number of jobs increased 68% while population increased 62%; therefore, executive problems arose chiefly in relation to isolated instances. Striking cases have been cited. One concern seeking to reduce costs was able, in a period of two years, to increase output in a certain department and reduce the number of needed employees from 1,100 to 850, and in another department the installation of machines for wrapping, sorting, and packing made possible a reduction from 75 to 25. Sometimes highly skilled workers can be replaced by machine tenders as has been seen by developments in the shoe industry and the cigar industry. The fostering of such improvement is favorable evidence of executive ability; failure to provide means for assisting displaced workers has caused unfavorable public reaction to certain corporations as well as industries as a whole and represents executive failure. Here again is evidence that the execu-

¹⁵Lund, *op. cit.*

tive must see a problem in all of its aspects in order to co-ordinate decision and action properly.

The public has benefited from invention, particularly as a consequence of increased production. A recent investigation has shown that during the period of 1930-1940 industries with a high rate of invention increased output 65%, while those with a low rate of invention showed only a 14% gain. During a period of thirty years, output per man-hour increased, on the average, 50%. Such improvement has made possible an over-all increase of output of 35%, along with a 25% decrease in working hours.

It has frequently been alleged that control of patents makes possible exploitation beneficial to an individual company which is detrimental to the social group as a whole. It is also alleged that patents are sometimes suppressed in order to protect companies already in a favorable position. Both of these allegations have been denied; however, in addition to modifications which have already been made in patent laws, the Department of Justice has proposed others. The recommendations of the Department of Justice, if enacted into law, would make it illegal for a patent holder to sell a patent or grant a license on any condition which would restrict the price, the quantity of production, the purpose for which the patented device may be used, or the geographical area in which the products emanating therefrom might be sold. The merits of these recommendations have been challenged, and it is at present uncertain whether they will ever be enacted into law. However, the existence of such proposals indicates that there probably have been social abuses.

Industry has become convinced of the merits of scientific research and invention. The National Research Council has recently indicated that there are more than 2,200 research laboratories in operation in the United States employing more than 70,000 scientists and technicians, and it is estimated that at least \$300,000,000 a year is invested in research. The first World War emphasized the need for certain chemical products which we had obtained

from European sources. As a result industrial chemistry was given great impetus, and the products of research in industrial chemistry have been made available in great quantities within recent years. The second World War drew attention to other urgent needs, and even greater progress in industrial research is anticipated in the post-war period. Industry has learned that it is possible to benefit from co-operative research conducted in endowed laboratories in co-operation with universities and technical institutes. Some organizations have been farsighted enough to encourage basic research in chemistry, physics, and other sciences. In general the history of exploitation through industrial research has been more socially acceptable than some other forms of exploitation in which industries have engaged. Co-ordinative effort is needed, however, to provide the greatest social benefits.

By no means all of the improvements, discoveries, and major inventions come from isolated inventors working independently or from industrial research laboratories. Men on the job have made many contributions. The farsighted executive encourages workers to exercise ingenuity and establishes ways and means of rewarding the worker who has an inventive turn of mind. Not all of the ideas obtained from workers are usable, partly because of their impracticability and sometimes because of the great expense which would be necessary to put them into operation, yet the few important contributions made by inventive workers justify encouragement of all.¹⁶

EXPLOITATION OF MARKETS

Progress is closely related to the search for new markets. The story of exploration and discovery of new lands resulting from need for market expansion is well known. New geographical information is constantly being acquired as a result of the search for markets; the formation of nations has resulted from the

¹⁶For a better understanding of the characteristics and mental processes of inventors see Rossman, Joseph. *The Psychology of the Inventor*. The Inventors' Publishing Company, Washington, D. C., 1931.

search; centers of trade have shifted as a consequence; and, to a marked degree, wars have resulted from the struggle for international market outlets. In recent years corporations have become international in scope because of the need for new outlets for products. It is quite possible that had they been left to themselves to develop markets, and had they been permitted to engage in restrained competition, international corporations might have promoted world peace. However, territorial ambitions of nations have frequently interrupted more peaceful forms of exploitation, and wars have resulted.¹⁷

In America a new form of market exploitation was widely used in the past quarter of a century. Markets for industrial products have been created where none appeared to exist. Methods of advertising and selling have been developed which first create a feeling of need or want for a given type of product, and new marketing procedures such as installment selling have been developed to make it possible for the artificially created needs to be satisfied. In order to market automobiles, radios, refrigerators, and antiseptics, manufacturers have found it necessary to promote widespread interest in these products; purchasers were made where none existed before.

From 1920 to 1930 every conceivable form of persuasion, including that of obsolescence of design, was used. Such exploitation succeeded or appeared to succeed almost miraculously. However, there resulted over-production of goods to be sold, over-expansion of credit, and over-inflation of values on paper—if we are to believe those who seek to explain the resulting collapse. It is possible that another important element, which is overlooked in all of the commonly stated explanations, was a jaded appetite on the part of the buyer. Probably the correct explanation, which

¹⁷It is not the intention of the authors to present a theory of war. There are many theories: one suggests the possibility that wars are caused by a need for control of natural resources; another suggests that inability to maintain favorable markets is the cause; and still another maintains that political ambition involving territorial control motivates armed aggression. All of these merit serious consideration and are probably supplementary rather than exclusive. It is even possible that all are contributory and that the true causes of war are psychological in nature.

is more significant than all of those previously mentioned, was poor co-ordination.

Market exploitation rather than constructive development of markets doubtless contributed to many of our present-day difficulties, including the World War. Whether this blame is national or international in scope matters little in the final charge of incompetency, nor can the business executive place the blame exclusively upon government leaders. Attitudes toward market problems on the part of business executives are usually reflected in the thought and action of government leaders. As pointed out earlier in this chapter in a quotation from Dr. Edwin G. Nourse, the philosophy of *laissez faire* or "we want to be let alone" to exploit markets without thought of consequence is outmoded.

Despite the tendencies of certain executives to follow the line of least resistance and indulge in exploitation techniques, many have discovered that co-ordination of market activities with other functions of corporate organization yields profits over a longer period of time. The growth of the mail-order business in the United States as represented by outstanding firms in the field substantiates this contention. Two leading mail-order houses operate on the principle that the customer must always be satisfied or his money will be refunded. They then make thorough market studies in order to provide a well co-ordinated plan of sales. Probably the most thorough market studies that have been conducted in America are those made by mail-order distributors. Each year, for example, one of these companies divides the United States into ten areas and issues ten catalogues, each frequently containing as many as fifteen hundred pages. The merchandise featured in these catalogues varies with the areas covered and represents the results of careful study of sales possibilities.¹⁸

Problems bearing on co-ordination in relation to marketing can be reduced to a statistical basis in many instances. However, it has been found that general buying power indexes which show

¹⁸Bijur, George. *Advertising and Selling*, September, 1940.

per capita buying potentialities without respect to individual buying habits do not furnish an accurate gauge of the market. Recent experiments have shown that general buying power indexes must be supplemented with other information in order to make possible the realization of greatest returns from sales effort. Some of the other factors that have been found to be significant relate to localities, climate, community culture, and competing commodities. Here, as elsewhere, the executive problem is one of weighing and judging supplementary information and co-ordinating diverse forces.¹⁹

CONSTRUCTIVE CO-ORDINATION

Exploitation, as has been pointed out, can be productive. It is usually profitable, but questions often arise as to equitable distribution of profits resulting from exploitation. Profit returns from exploitation continue for varying periods of time. Sometimes, as in the exploitation of natural resources and labor, the profit margin has continued for generations. Financial exploitation cycles have not ordinarily exceeded ten years in the United States, and it is possible that the high point in financial exploitation so far as the United States is concerned was reached during the period from 1921 to 1930. Market exploitation tends to follow the cycle of financial exploitation; however, cycles for individual companies may cover longer or shorter periods of time. During the period from 1935 to 1939 the stage was being set for the exploitation of markets on the most gigantic scale that has ever occurred.

Sometimes financial exploitation and market exploitation occur simultaneously, as is well illustrated by the development of the radio industry and the airplane industry. These industries started as commercial exploitations of inventions and scientific discoveries. Literally hundreds of companies floated securities and attempted to market a product. In the radio industry over three

¹⁹Weld, L. H. D. "Reducing Guesswork in Sales Quotas." *Executive Service Bulletin*, Metropolitan Life Insurance Company, April, 1935.

Also weekly articles by Dr. Weld appearing in *Printers' Ink* from July 31, 1930 through September 11, 1930.

hundred companies were launched in the short space of three years. Less than a dozen of these companies have ever made one cent of profit for stockholders. The promoters of these companies profited, but employees of many of the companies and investors suffered as a consequence of the exploitation techniques. It is sometimes argued that the public benefited because the resulting intense competition forced more rapid development of the radio industry. Such a contention is questionable, because basic patents were controlled by a small group of companies. A few constructively managed companies and those protected through patent control have survived, and in many instances investors, employees, and consumers alike have benefited. In any event the progress of radio manufacturing and distributing of receiving sets in the United States has exceeded that of any other country.

Many instances of exploitation are deliberate; others are the result of failure to distinguish between constructive co-ordination of factors within an industrial organization and acceptance of illusory expedients in the adjustment of the organization to outside economic forces. Exploitation is characterized by emphasis on one element in an array of factors which enter into corporate practice. The executive who attempts to take advantage of exploitation possibilities is a speculative manager. He sees possibilities but does not always see ultimate consequences.

The co-ordinative activities of the executive must be carried into operation through other persons. There are no fixed procedures by which co-ordination of activities can be accomplished. "Mechanisms by which co-ordination must be brought about are admittedly experimental as yet. But the principle which a psychological approach to this problem suggests as sound is one which can be stated in general terms. This principle is that co-ordination effectively takes place only where every group especially interested in carrying on a function or activity is represented in making the decisions which affect success of that activity. The invention and installation of structural arrangements—conferences,

committees, etc.—which give this principle actuality in any given organization is one of the special challenges to leadership today.”²⁰

Every executive is an integrative center, and co-ordinative mechanisms must be established which will make it possible for the executive to serve in that capacity. In commenting on the relative significance of integration and co-ordination, Ordway Tead states: “Both of these processes are necessary in forwarding the corporate group’s end. And unless special attention is paid to the co-ordinative end of the problem, the values of integration may be seriously impaired. For nothing is easier than for a small group of informed individuals to agree on a new way of action, only to have the larger groups which they represent never come to understand and agree about the solution adopted. The small group conference has ultimately to share its experience of fact finding and creative thinking with the members of the several groups represented. Merely sharing dissatisfactions will not serve. That is why attention to the machinery of co-ordination becomes so important.”²¹

ANALYSIS MUST PRECEDE SYNTHESIS

Co-ordination has been designated as a basic principle in industrial management by L. P. Alford as follows: “The smooth, frictionless, effective attainment of the objective of an organization is secured through the co-ordination of all the activities performed.” In his opinion “co-ordination is concerned with relationships of individuals and their activities, principally in regard to time.” He further states that the principle of co-ordination requires the establishment of system; i.e., “normal routine by means of which the activities of an industrial organization are carried on and controlled . . . defined routines concerned principally with (a) what to do; (b) how to do it; (c) where to do it; (d) when to do it.”²²

²⁰Tead, Ordway. *Human Nature and Management*. McGraw-Hill, 1929, p. 161.

²¹Tead, *op. cit.*, p. 197.

²²Alford, L. P. *Principles of Industrial Management*. Ronald Press, New York, 1940 pp. 169-170.

Co-ordination is a process of synthesis. Elements must be perceived, weighed, judged, and properly adjusted to the attainment of a purpose. Analysis must precede co-ordination. The executive does not often make detailed analyses; others are trusted to do this for him. But the executive must be able to analyze situations to an extent which will show him the factors requiring minute study. Because of the ease with which exploitation can be indulged in, important problems of management are often neglected. However, the analytical approach is growing in favor in industrial management.

The first step in preparing to analyze company conditions is that of determining points of attack. These will differ with varying circumstances; therefore, specific procedures which have general application cannot be set up. The following points are among those most frequently considered.

1. Study the relation of the purchasing department to the production and marketing divisions. Is there proper co-ordination?

2. Study the relation of various executive officers to each other. Is there proper distinction of functions among minor executives? Are major executives capable of functioning in a broad co-ordinative sense—or are some major executives such merely by title?

3. Study the personnel of every department. Have jobs been clearly defined and are the occupants fitted for the job? Is the company providing adequate training for its employees?

4. Study markets and sales procedures. Is marketing left to chance or does the sales department analyze markets and plan ahead? Are sales people being trained to represent the firm as well as make sales? Is sales training being carried on through field demonstration or is "canned air" being used? How much is lost through poorly conceived advertising? Is advertising co-ordinated with sales activities? Do the sales and advertising departments know the consumer?

5. Study budgets and reports of the accounting departments—not to force economies but to make sure that operating capital is wisely expended.

6. Study the experiences of other firms; have members of other firms study your experiences. Be critical of each other.

7. Study the attitude of the public toward your firm and its product.

8. Study financial structure with a view to soundness of organization.

9. Study technical changes which relate to your product.

10. Study critical points in your management organization. Who are the pivotal men among minor executives and foremen? Are these men being carefully selected and trained for their duties? Can these men co-operate effectively as well as carry on their individual jobs?

SYSTEMS OF CO-ORDINATION

Much has been written about "scientific management" in industry since F. W. Taylor and his associates began their investigations of production problems in industries depending on operating procedures characteristic of the metal working trades about fifty years ago. Some proponents of "scientific management" have presented its principles as efficiency devices and procedures to be applied without respect to the human factor. Taylor, himself, never so conceived it; rather, he described scientific management as a state of mind. To him scientific management meant analyzing, measuring, weighing, and co-ordinating factors in the management of production, with due consideration to those with whom management was obliged to work. His philosophy has been set forth in three basic principles: "(1) The substitution of a science for the individual judgment of the workman; (2) the scientific selection and development of the worker, after each man has been studied, taught, and trained, and one may say experimented with, instead of allowing the workmen to select themselves and develop in a haphazard way; and (3) the

intimate co-operation of the management with the workman so that they together do the work in accordance with the scientific laws which have been developed, instead of leaving the solution of each problem in the hands of the individual workman."²³

The practices inaugurated by Taylor and his followers have given workers many opportunities to complain of abuses. These abuses have occurred largely because the principles applied to materials of production have not been applied with comparable judgment to the human element in production nor to the marketing problems arising out of the necessity for the sale of the product. However, modern scientific management attempts to apply its principles to men and markets as well as to materials of production.

No one exponent of the systematic approach to management has provided us with an exhaustive list of elements involved in scientific management. They are scattered through the writings of F. W. Taylor, Harrington Emerson, H. B. Gantt, F. B. Gilbreth, and L. P. Alford. A brief summary of the major points has been made by W. C. Redfield as follows:

Close co-operation and sympathy between the management and the workman. This is foremost and basic. If it is not realized that this is foremost and basic, the subject is completely misapprehended.

The standardization of equipment and accessories throughout the shop.

The systematizing of work in operation, of the care, maintenance, and issue of materials and tools, and the careful routing of all orders while passing through the works.

The planning in advance of the work for each machine, and furnishing tools, fixtures, and materials ready to the hand of the workman before needed, so that delays between operations are cut out.

The study of the actual time occupied by each element or movement of every operation, in order to determine the correct time required for it, and save waste energy.

The determination in time study of the proper allowance for rest, necessary delays, or interruptions of work.

²³Quoted in Alford, *op. cit.*, p. 62.

EXECUTIVE ABILITY

The fixing of standard time for doing work, based upon the aforesaid studies, and the careful instruction of workmen in the best and easiest methods of working.

The payment usually to the workman of a bonus or premium based upon his doing the work in a certain relation to the standard time.²⁴

PRINCIPLES OF CO-ORDINATION

Certain basic principles have application in the administration of industrial enterprises. Successful industrial control requires proper co-ordination of these principles. Stated briefly they include the following:

1. Authority must be defined and properly delegated.
2. Functions of every member of an organization must be clearly specified.
3. The talent and training of every employee should fit him for the functions he is to discharge.
4. Co-operative action is essential.
5. Functions can be discharged only through the individuals responsible for them, therefore the executive must provide the leadership necessary to secure co-operation.
6. Orders from those in whom authority is vested must clearly indicate what is desired.
7. Reports from those to whom orders have been issued must show that the orders have been executed.
8. Necessary information must move freely through an organization.
9. A system of promotions must supplement wage incentives.
10. Natural incentives, such as desire for recognition, approval, and mastery, should be stimulated.
11. The human element must always be considered in dealing with employees.
12. Management must learn the art of self-examination.²⁵

²⁴Redfield, W. C. *The New Industrial Day: A Book for Men Who Employ Men*. Century, 1912, pp. 176-177.

²⁵For a statement of principles and procedures in organization to provide co-ordination see Alford, L. P., *op. cit.*, Ch. 7 and 8. For useful suggestions on management self-examination see Alford, *op. cit.*, Ch. 30.

The Executive as a Supervisor

EVERY EXECUTIVE POSITION INVOLVES SUPERVISORY FUNCTIONS. WHILE this is true, it does not follow that all supervisory positions are executive positions. In all organizations large enough to justify specialization those officers responsible for management delegate a part of their work; and supervision is one of the functions most frequently delegated. In this chapter we shall be concerned primarily with problems of supervision and shall treat supervision as an executive function whether exercised directly or as a delegated responsibility.

WHO SUPERVISES WHOM AND WHAT?

The term, "supervisor," has different meanings when applied to different lines of activity; it has varying significance in different concerns engaged in the same type of activity, and sometimes is applied differently in different departments in a particular company. It may mean a factory manager, general superintendent, assistant superintendent, department or division head, general foreman, foreman, or assistant foreman. Regardless of the loose manner in which the term, supervisor, is used, "to supervise" generally means that which the dictionary states; namely, "to oversee for direction; to superintend; to inspect with authority." Roughly, supervision is generally used to mean "the direction and critical evaluation of operations." Implied, but not always stated as an element in supervision, is the assumption that good supervision results in smooth, rapid, and harmonious operation. Obviously

some phases of supervision are directed toward materials, methods, and machines. But the crucial test of supervision usually comes as a consequence of its application to men.

In many cases supervisors are staff officers with highly specialized functions relating to technical processes. If more attention is paid to the technical processes than to the men working under the direction of the supervisor, then supervision fails. Sometimes the organization of a manufacturing company or business enterprise provides for the delegation of supervision in respect to the human element in order to make it possible for the staff officer to devote attention to matters which seem more important. In delegating authority to supervise manpower there is a constant risk that points of friction may develop. This may be avoided if it is recognized that delegated authority to supervise is essentially an executive function. Effective delegation of such authority requires that those in whom such authority is placed must be carefully chosen, carefully trained, and their work frequently evaluated.

CONSTRUCTIVE SUPERVISION

It once was said that for every ten workers employed in a plant it was good business to hire one to sit and watch the others. Fortunately this theory, which was based on the "chain-gang philosophy" of employee relations, has given way to more constructive and scientific concepts of supervision. Supervision through policing operates only one way—orders come from above, are transmitted to the worker, and no response except compliance is tolerated. Creative supervision means the stimulation of co-operative effort and provision for interchange of ideas, thus setting up a two-way flow of constructive suggestions from management to men and from men to management. The creation of means whereby such a flow of ideas may occur represents inventiveness in the field of human relations in the same way that the development of new tools and machines for production is inventive. Each new tool or machine invented is an extension of man's capacity

for controlling and modifying his environment and supplements the manipulative capacities provided by nature. In a like manner each supervisory technique developed is an extension of executive personality and power.

While supervision by its very nature is the implementation of authority, the modern point of view provides for research in the development of supervisory practices and evaluation in measuring their effectiveness. Evaluation of effectiveness should be made not only in terms of increase in efficiency of operations and improvement of processes, but also in terms of better personnel relations. Investigations conducted with large numbers of workers in industrial plants have shown that the supervisor is the focal point in practically all labor problems. From one such study an investigator arrived at the following conclusion: "The relation between first-line supervisors and the individual workman is of more importance in determining the attitude, morale, general happiness, and efficiency of the employee than any other single factor."¹ If this conclusion is accepted, it follows that men who are given the responsibility of supervision must be encouraged to develop effective supervisory techniques. Comments and suggestions by employees often provide an excellent starting point for developing a supervisory training program which will result in creative supervisory practices.

SPHERE OF SUPERVISORY INFLUENCE

It is unfortunate that the importance of supervisory functions is not more fully recognized by top-management, because the channel through which management policies must flow is the supervisory staff. It is obvious that no matter how excellent management policy may be it fails if not properly expressed through supervision. Many illustrations of failure in implementation of policy could be cited but the experience of one company will suffice.

¹Putnam, M. L. "Improving Employee Relations." *Personnel Journal*, 1930, p. 325.

Operating at a loss a manufacturing firm retained the services of a management engineering organization. After careful study of methods and policies, the consulting organization advised that certain changes in policy and methods of production be made. The board of directors and president of the manufacturing concern accepted the recommendations, agreed that changes should be made, and issued orders to that effect. A financial statement six months later revealed that the firm was still losing money, and investigation showed that old policies and practices were still being followed to a considerable extent. Either because of failure to comprehend the orders for change, or because of reluctance to carry them out, the supervisory staff was carrying on as usual. Top-management blamed its supervisory staff for ignoring orders, but they should have blamed themselves, for the very failure of the supervisory staff to effect changes was evidence of inadequate provision for supervisory functions.

In the example cited, orders for change in policy with respect to production procedures, as well as those relating to human relations, were not properly implemented. Frequently it is found that orders for change of policy relating to production procedures are discharged more effectively than those pertaining to human relations. This is probably true because supervisors are frequently selected almost wholly on the basis of technical knowledge and skill. While technical knowledge and skill are important qualifications in a supervisor, ability to understand the human element is equally, if not more, important.

Not only does selection for technical knowledge fail to guarantee competency in human relations, but such a procedure is often likely to result in the selection of persons notably incompetent in dealing with the human element. This is true because technically skilled persons more often than not have neglected to develop skill in directing the efforts of others.

The supervisory staff should not only be expected to transmit policies of top-management to workers, but in turn top-manage-

ment must depend upon the supervisory group to report back the attitudes, opinions, and accomplishments of workers. It is comparatively easy for top-management to get out of touch with its workers under the best of conditions. When supervision is improperly delegated this condition is aggravated. Under such circumstances, top-management and workers are likely to draw further and further apart. When this occurs one of two results is probable: (a) top-management may discover that it actually is not in control of the organization, that executive functions not delegated to the supervisory staff have been assumed by them, or (b) highly explosive conditions may develop which might easily result in serious labor-management conflict.

The influence of the supervisor extends beyond the limits of the company to a greater extent than is ordinarily realized. The influence of the supervisor may extend into the homes of the workers and into the community in which they live. Throughout all periods of history men have "lived" close to their jobs. The home life, cultural standards, and general social outlook of every worker is limited in a material way by his job. In a more subtle way the life pattern of a worker is molded through those with whom he is associated in his work. He responds particularly to leadership forces, and the strongest leadership force with which he comes in contact is that provided by the supervisors in the company for which he works.² The influence of the supervisor extends to the entire family of the worker and thus becomes a factor in community life. A clearer recognition of the significance of the supervisor is necessary if full value is to be gained by the company through the delegation of supervisory functions.

DON'T BLAME THE SUPERVISOR

It is not unusual for companies to list "Good Will" among their assets. While capitalizations of good will for the purpose of issuing securities is an unsound financial practice, every executive

²Today the leadership force supplied by representatives of organized labor frequently conflicts with that provided by the supervisory staff of the company.

recognizes the value of favorable customer and public relations. It is difficult, therefore, to understand management attitudes which permit employee good will to deteriorate. If good will is a valuable asset in distribution, it is even more valuable in production. Conversely, the ill will of employees should be considered a liability. One writer in covering this point has suggested that employee attitudes should be considered by anyone contemplating investment of money in a particular company: "Are the mental conditions (created by the manager) of the establishment good? Is it free of discontent, irritation, or excitement? In a word, is management good enough so that an investment in the plant would not be endangered by the possibility of serious labor disturbance?"⁸

Top-management, when confronted with unsatisfactory labor relations, is prone to blame "labor agitators," "damnable politicians," and "dumb foremen." In making such statements management, whether it realizes the fact or not, is in reality blaming itself, because it must assume responsibility for conditions which give labor leaders and politicians ammunition for their campaigns, and the "dumb" foremen are of their own choosing. Management also confesses self-guilt in blaming foremen and other supervisors. This is true, as has already been indicated, because the delegation of supervisory functions to others represents an extension of executive personality and responsibility. If supervision is inadequate, the failure is an executive failure, for the person doing the supervision is the agent acting for, and acting as, the executive. In the capacity of executive agent the supervisor is responsible to top-management and top-management, in turn, is responsible for his acts.

Recent legislation has tended to make management conscious of responsibility for acts of foremen in a legal sense. For example, if a foreman orders a man to work in violation of the Federal

⁸Quoted from Bloomfield in Elkind, H. B. *Preventive Management*. B. C. Forbes, New York, 1931, p. 8.

Wages and Hour Act, management cannot, by pleading that it did not know of the order, escape penalty. Yet, despite legal recognition of delegated responsibility, top executives often fail to realize that when a foreman tells a worker, "You ought to be damned glad you've got a job," it is not a "dumb foreman" speaking—it is the company speaking in-so-far as the worker is concerned.

No amount of decrying poor supervision or attempting to place blame on the supervisory staff by top executives will accomplish anything worthwhile in making supervision more effective. Supervisory responsibility is not something that can be delegated and forgotten. It should always be remembered that the best supervisor may have points of weakness. Constant striving for better supervisory relations is the only solution to the supervisory problem. If things are going wrong between the company and the workers, top-management must take the supervisory staff into its confidence. This means that through conferences, in which all concerned learn to work together, policies must be established which seek to correct difficulties and lay the foundation for future harmony.

The attempt to define management's responsibility is made difficult by the diversity of situations in which it functions. However, deliberately ignoring the fact that management implies a task of making cloth in a cloth mill, of making shoes in a shoe factory, etc., it may be said that *its chief task is to arouse in a group of men a harmony of mood and attitude that permits the accomplishment of the organization's task in the quickest, easiest and most friendly way*. Labor management, in other words, is the chief responsibility of major as well as of minor executives. Success or failure of higher management—as well as of the intermediate and direct supervisory force—is to be measured not in terms of technical knowledge or skill, but in terms of their proficiency in organizing the will of the employees—in leading men and women to work together.⁴

⁴Viteles, Morris S. *The Science of Work*. W. W. Norton Company, Inc., New York, 1934, p. 400.

It is not unusual in industry, as elsewhere, for plausible fallacies to be compounded. Top-ranking executives, in seeking to explain away their neglect of supervisory responsibilities, often contend that their job is to see that the company makes money and thereby remains in business. They argue that by devoting their attention to the making of profits they can continue to operate and provide wages which can be used to hire workers. Implicit in such arguments is the theory that so long as wages are available, workers can be secured. Carried to a slightly more absurd degree such reasoning leads to conclusions that financial incentives can be used by supervisors to command worker co-operation. Thus, by starting with a false premise, unsound inferences are made and a series of inter-related false assumptions are developed.

WAGES NOT A SUPERVISION SUBSTITUTE

Wages cannot be used as a substitute for supervision. It is not even possible by paying slightly higher wages than the going rate to reduce the necessity for supervision. Some industrial organizations have, in the past, made the mistake of assuming that they could buy enthusiastic participation in production processes. Loyalty and enthusiasm cannot, except for temporary periods, be bought. In reality, wages usually buy nothing more from the worker than his time. The common methods of referring to wages and work periods are evidence of this fact. Note, for example, the common expressions: "the eight-hour day," "the forty-hour (forty-four or forty-eight-hour) week," "the seven-day week," "seventy cents per hour," "over-time," "time and a half," "double time." All of these indicate that the worker is selling time and that the employer is, whether he realizes it or not, buying time.

Having bought a worker's time the employer begins to ask for other things—efficiency of production, enthusiasm, loyalty, interest in work, co-operation, and numerous other attitudes toward work grouped loosely under the term, morale. Inasmuch as these essentials to competitive production cannot be fully pro-

cured through straight wage payment, other means of encouragement must be utilized. The problem of getting work done in the manner desired by management, and the problem of maintaining harmonious working conditions, too often are left to the supervisory staff with no significant aid from top executives other than provision of wage incentives.

WAGE DIFFERENTIALS MAY BE HELPFUL

Properly established wage differentials for various kinds of work may make supervision somewhat easier. In the United States the principle of job-wage differentials is thoroughly established; however, methods used in determining these differentials are not always sound. The principle of job-wage differentials is also widely applied throughout the rest of the world. Provision for such differentials has been necessary even in Russia, where the basic philosophy of equalitarianism has been preached and has been tried experimentally.

The following pronouncement made in 1931 by Mr. Joseph Stalin has been followed by action.

It cannot be tolerated that a puddler in ferrous metallurgy should earn no more than a sweeper. It cannot be tolerated that a railroad machinist should earn no more than a copy clerk . . . In every branch of industry, in every workshop, there are leading groups of more or less skilled workers who must be first and foremost attached to production if we want effectively to create a permanent staff of workers in the factory. These leading groups of workers represent the basic link of production. Attaching them to enterprise, to the workshop, means attaching the entire staff of workers and putting an end to labor turnover. How can we attach them to the enterprise? They can be attached to the enterprise by raising them to a higher position, by increasing their pay, by introducing a system of wage payments which will do justice to skilled workers.⁵

⁵Quoted from Stalin, Joseph. *Voprosi Leninizma*. Moscow, 1936, pp. 451-452, in "Studies in Enterprise and Social Progress," National Industrial Conference Board, 1939, p. 313. This conference Board report contains interesting and valuable data on wages, wage-payment systems, and living costs in Russia. The following wages are reported: unskilled workers, average \$582.00 per year; street sweepers, average \$360.00 per year; bureaucrats, average \$1,800.00 per year; top-notch factory piece workers, average \$2,400.00 per year.

Wage incentive plans which make possible differences in earning power based on productivity of the individual worker may help to provide the production desired by management; however, it is not unusual for wage incentive systems to bring about an increase in productivity without any marked improvement in labor relations. In fact, incentive systems may, while increasing productivity, become the source of employee dissatisfaction. Both job-wage differentials and individual incentive wage differentials, if improperly conceived and applied, may add materially to the task of supervision.

Establishing wage differentials for varying kinds of work presupposes careful job evaluation. Establishing differential wage scales by executive fiat is likely to prove to be the most unsatisfactory method for setting up rates of pay for different jobs. Fortunately, methods of job evaluation have been developed which make possible equitable solutions to job-wage differentials. But, unfortunately, many companies are saddled with carelessly determined wage scales which, in many instances, have become a part of union-management contracts. Where such conditions exist, job evaluation may be used to help bring about correction of inequities, but the task is made extremely difficult if rates have already been fixed by contract. The chief difficulty lies in the fact that it is usually possible to re-negotiate rates upward but seldom possible to re-negotiate those which should be reduced.

In all job evaluation studies the supervisor should play a prominent part. Supervisors know the jobs done by the men in their departments. They also know, in a general way, the kind of worker who is able to fill each job most satisfactorily. This knowledge possessed by the supervisor is valuable information which should be used in evaluation studies.

In general there are three methods of job evaluation now in common use: (a) arbitrary classification, in which all jobs are distributed on the basis of judgment among a pre-determined system of grades; (b) job ranking, in which grades of jobs are

determined through ranking in order of importance; and (c) point evaluation, in which a scale of values is used to determine the relative position of different jobs. No common basis for selecting the factors exists; therefore, the factors used differ from company to company. The plan in operation for one company, for example, utilizes a scale of values based on five factors: (1) mental effort, (2) skill and knowledge, (3) physical effort, (4) responsibility, and (5) working conditions. In other companies the number of factors is greater, and in one company the number used in rating jobs runs to fourteen: (1) degree of executive responsibility, (2) responsibility for property, money, or safety, (3) responsibility for continuity of service, (4) relation to economy of production, (5) necessity for special skill or knowledge, (6) extent of public contact, (7) complexity of duties, (8) working conditions, (9) minimum starting age, (10) sex, (11) special personal requirements, (12) minimum education, (13) length of time required to learn the job after assignment, and (14) experience required before assignment.⁶

Once the method of evaluation that is to be used has been decided upon, a committee, including representatives from the executive staff, the personnel department, the production division, industrial engineering division, and the supervisory staff, should determine jointly the details of the plan, establish the factors, and determine the weights to be allotted to each factor. Some firms have found it desirable to invite representatives of the employee group to participate in activities of such committees. This committee, or a sub-committee composed of selected members from the group, should then be assigned the responsibility of making factor evaluations for the jobs under consideration. It cannot be contended that the pooled judgment of such a group or committee approaches scientific accuracy; however, group judg-

⁶For examples of evaluation plans see *Salary Standardization and Administration*, Policyholders Service Bureau, Metropolitan Life Insurance Company, New York City, and *Studies in Personnel Policy No. 25*, "Job Evaluation," National Industrial Conference Board, New York City, 1940.

ments do provide a workable plan and result in reasonably accurate evaluations.

In like manner incentive wage systems for rewarding efficient production should be established only through supervisory staff co-operation. Most ready-made incentive plans have been developed by production engineers, and, as a consequence, important human elements have been overlooked. Inclusion of representatives from the supervisory staff on the committee which develops the wage incentive plan is a safeguard against over-mechanization and complexity which are the two basic faults characteristic of most incentive systems.⁷

Properly determined wage differentials and incentive payment systems may provide supervisors with valuable tools for making supervision effective. However, inequitable, difficult to apply, hard to understand, and unstable systems not only make supervision difficult, but often provide points of possible friction between employees and the company. Since the supervisor must work directly with the recipient of the wages, his judgment should be sought in establishing wage plans. Furthermore, many possible sources of difficulty can be anticipated and avoided if the worker who is the recipient of the wages participates in activities leading up to the establishment of wage payment plans.

NON-FINANCIAL INCENTIVES

To state, as we have, that payment of wages or wage premiums cannot buy loyalty, enthusiasm, or job satisfaction does not deny the importance of financial incentives. But the force of financial incentives is usually spent in motivating the worker to seek a job and to keep working at the job. After a worker has sold his time, the other desirable accompaniments to effective work must be motivated through appeal to other sources of satis-

⁷*Studies in Personnel Policy No. 19*, "Some Problems in Wage Incentive Administration," National Industrial Conference Board, 1940, and *Studies in Personnel Policy No. 33*, "Problems in Wage Adjustment," National Industrial Conference Board, 1941.

faction, therefore, the use of non-financial incentives is necessary in effective supervision.

Of the non-financial incentives which can be applied, appeal to desire for security is probably the strongest. One method of capitalizing on this incentive is use of threat of discharge. Conditions no longer permit the reckless use of this threat; therefore, it remains for industry to learn how to capitalize on the desire for security in a productive manner. Failure of industry to do so in the past has resulted in efforts on the part of representatives in government to provide forms of social security as political motivation. Plans which have been legislated to date are not objectionable; however, the interest of public officials in this field could easily become the basis for demagoguery. On the other hand, development of means of capitalizing on the desire for security, by employers for their employees, would reduce the political use of this basic human desire. Development of such means is a challenge to creative supervision.

Almost as potent as the desire for security is the desire for recognition, the desire to be somebody of importance, the desire to do something to command respect, the desire to gain public commendation, or otherwise win recognition and accord. The strength of this desire is well illustrated by experiences reported by Whiting Williams, who has devoted the better part of a lifetime to the making of informal studies of workers at work.⁸ Further confirmation of the natural tendency of workers to crave individual recognition has been provided in studies made by C. Delisle Burns among British workers.⁹

The desire for individual recognition is more than the old concept of pride in workmanship so freely attributed to skilled craftsmen by past and present writers. Pride in work, artistry, and like designations are but extensions of personality and are re-

⁸Every executive will profit from reading the following books by Whiting Williams: *What's On the Worker's Mind?*, 1920; *Full Up and Fed Up*, 1925; *Main Springs of Men*, 1925; Charles Scribner's Sons, New York.

⁹Burns, C. D. *The Philosophy of Labor*. Allen & Unwin, London, 1925.

lated to the desire for recognition. The contention that pride in workmanship is inherent in the worker is but another way of saying that personal pride can be aroused by recognizing the meritoriousness of the worker's efforts.

Although some headway has been made in developing techniques to harness the human force which responds to personal recognition, there are almost limitless opportunities for creativeness on the part of the supervisor. Unfortunately, the methods of mass production and the herding together of vast armies of workers, which is characteristic of present-day industry, give rise to difficulties which were not present in small work groups in the past. Herein lies a challenge to creative supervision which applies equally to men in top-management positions as it does to men in minor supervisory positions. Top management can benefit by finding the means for recognizing meritorious achievement in subordinates who invent ways of tapping human energies at their source. In the past, management has seemed anxious to reward those who could invent machines to utilize human energy; in the future, it must reward those who invent new ways of managing men if the techniques of management are to attain the recognition accorded developments in material science and technology.

Next to the power of security and recognition as a basis for incentives comes a third factor which may be lumped under the general term, satisfaction in work. Many things contribute to this rather elusive attitude or state of mind which is extremely important to good morale. The personal relation of the supervisor to the worker has already been pointed out as a contributing element to work satisfaction. An innumerable lot of little things and some very big ones make up the pattern of contact between a company and its workers. The supervisor is in immediate contact with the worker; therefore, he is in the best position to know what these are. While they will be the same from worker to worker to some extent, they will not always fall into the same pattern in the instance of each worker. In fact, it is reasonably safe to say that

they will differ with each and every worker. The supervisor, therefore, must not only understand human nature in general, he must "know" his men in particular as separate and distinct individual personalities.

Carl Heyel, in his excellent little manual on *How to Create Job Enthusiasm*, has pointed out five principles which should be kept in mind in trying to promote job satisfaction. These principles may be summarized briefly as follows:

(1) In dealing with people you have to contend with facts, and at the same time you have to contend with sincere imaginings that have the force of facts. . . . Job enthusiasm goes on inside of people; it is often not susceptible to the forces of logic.

(2) Enthusiasm is almost always something there can well be more of. The only safe procedure, then, is for management to see to it that everything humanly possible is continually being done to instill and maintain enthusiasm in employees; and, conversely, that everything humanly possible is being done to guard against policies and actions that militate against job enthusiasm.

(3) Stimulation and maintenance of job enthusiasm are altogether a management responsibility. Of course, job enthusiasm often exists in individual workers without active steps by management to arouse it. If it does, it is so much velvet. But job enthusiasm on the part of the majority of a working group usually requires a starting mechanism. This concept of management responsibility seems to be one that wins only the most reluctant acceptance by management and owners.

(4) We must constantly prod ourselves into remembering that job enthusiasm on the part of employees is something that management can have almost for the asking—if management philosophy is right. Employee capacity for enthusiasm is really much greater than most managements realize. As a matter of fact, people in general grasp at things to be enthusiastic about, as the continually varying fads that sweep the country demonstrate.

Job enthusiasm is there latent and waiting, because most people like the kind of work they are doing. Mind you, they may not like their particular employer or supervisor, and they may have a lot of specific grievances about their particular job, but by and large they have no quarrel about their occupations. That is because, in this coun-

try, despite recurring economic depressions and personal frustrations most people exercise some degree of selection over at least the kind of work they are doing—even though they may sometime wish they were working for some other company—and so, in general, people are not engaged in activities that are inherently repugnant to them.

(5) The fifth thing to keep in mind if we want our thinking about job enthusiasm to be constructive is a very simple concept, but it is one that underlies every human relations problem, no matter what industry is involved. It is simply this: *employees are people!* By and large management is shockingly unmindful of this very elemental idea. We buy machines for production, and we buy labor for production and to someone who pores over profit and loss statements but never gets inside the plant, the entries representing these two things may get to look pretty much alike. Although machines are becoming more wonderful every day—and for many operations surpass human beings—the one thing that can never be built into a machine is job enthusiasm.¹⁰

SUPERVISION AND AUTHORITY

When top-management delegates supervisory responsibilities it is usually implied that authority is likewise delegated. All of which is excellent, but the "I'm the boss and you do what I say or else" philosophy in industry is dead. Such a concept of exercise of authority is contrary to modern management principles. "Management," according to the definition adopted by the American Society of Mechanical Engineers is the "art and science of preparing, organizing, and directing human effort applied to control the forces and utilize the materials of nature for the benefit of man." The executive of today and, in turn, the supervisor who works with him in applying principles of management "conceives himself as responsible for group achievement through leadership rather than as authorized to secure personal achievement through compulsion of others." (Quoted from H. W. Persons, Society for Advancement of Management.)

In America at least, while it might be difficult to prove that there has been a decline in respect for authority, workers respond

¹⁰Heyel, Carl. *How to Create Job Enthusiasm*. McGraw-Hill, New York, 1942, pp. 30, 33, 34, 36, 39. This book contains many examples of creative supervision which should stimulate the development of ideas by others.

reluctantly to the power of authority asserted as such. The supervisor must develop ways of presenting to workers orders which have been transmitted to him from higher ranking officials. Although a statement that "the boss" wants a certain thing done may help motivate its accomplishment, workers may respond unenthusiastically. In routine matters, of course, the authority behind orders is usually unquestioned. It is in implementing broad policies which have been submitted from higher ranking officials that the supervisor is required to exercise the greatest degree of ingenuity.

Even though the right to exercise authority delegated to the supervisor is not questioned by the worker, enthusiastic co-operation cannot be won without judicious use of non-financial incentives. Crude and undiplomatic exercise of authority may arouse resistance and promote dissatisfaction which may become sources of major grievances.

In transmitting orders to workers, authority can be asserted with the least degree of friction if the following general principles are kept in mind:

1. In asking a worker to do something, make the request in language that he can understand clearly.
2. State the request in a form that indicates that it is consistent with the functions which the worker is supposed to discharge.
3. State the request in terms which will make that which is desired appear to be in keeping with the personal interests of the worker.
4. Ask the worker to do only such things which he is mentally and physically capable of doing.
5. If the request is an unusual one, state reasons for asking that the order be carried out.
6. Keep in mind that a worker will be reluctant to carry out an order that is in conflict with prejudices, beliefs, and moral principles. Clear up such points if it appears that they may be involved.

LINES OF COMMUNICATION

It has been customary to think of industrial organizations in terms of the flow of authority. Today less emphasis is placed on the authority phase of organization and greater emphasis on responsibility and on the encouragement of employee co-operation. Line organization of the military type is rarely found in present-day industry. Its disappearance began when Frederick W. Taylor suggested functionalization of supervision relating to quantity control, quality control, discipline, instruction, production methods, routing, and costs. While providing for specialization, functional organization leads to confusion because of the diffusion of authority as contrasted to the more workable plan of delegation of authority. This difficulty has been overcome to a great extent through the introduction of line-and-staff organization. The line-and-staff plan permits centralization of authority in a line officer, leaving to the staff members the specialized functions necessary for successful operation. The line officer retains final authority and depends upon his staff for certain information and the carrying out of specialized activities which are related to his responsibilities. With proper selection of line officers, with intelligent utilization by line officers of the contributions of the staff members, line-and-staff organization works quite satisfactorily.

Because of size and complexity it is difficult for the average worker to understand the operations of his company. Some companies make the mistake of assuming that the worker either has no right to information about the company or that he does not want it. The truth is, however, that workers do want information and good supervision requires that they be permitted to have it. They want information about profits, costs, personnel organization, labor policies, expansion plans, materials, methods of production, and many other topics. Many companies have also found that employees are interested in company history, financial set-up, the general line of products that the company makes, the sales outlook for company products, research activities, general busi-

ness conditions, and many other topics hitherto believed to be of interest only to top-management.

There are many ways of placing information in the hands of employees, but channeling information through the line organization seems to be the best plan for disseminating knowledge. This means that the supervisor must be taken into confidence by top-management officers, coached in relaying information, and encouraged to learn from workers the information which they would like to receive. In this manner, lines of authority and responsibility become what they should be; namely, lines of communication. Auxiliary methods of placing information in the hands of employees, such as movies, radio broadcasts, bulletin boards, pay inserts, annual reports, house organs, handbooks, directmail, and group meetings have been successfully used. Such vehicles produce the most satisfactory results when they are used as supplements to the general method of channeling information through supervisors.¹¹

It is not difficult to understand the obvious fact that pressure in company organization is downward. Information, suggestions, and ideas flow downward as a natural order of things by virtue of a sort of physical gravity concept of industrial organization. To provide for the reverse is difficult, but modern management requires a two-way exchange of ideas. To overcome the restricting force of line structure, some companies have supplemented line organization by the use of committees. For the most part the functions of committees are advisory; they recommend, but final authority for putting recommendations into effect is usually reserved for management. Advisory committees are usually made up of men on the supervisory level, but the principle of committee organization may be extended to include workers. A few companies have developed interesting and successful plans for

¹¹General discussion of the problem of disseminating company information appears in Heron, A. R. *Sharing Information with Employees*. Stanford University Press, 1942. Topics of interest to workers directly relating to their jobs as obtained through 10,300 interviews are reported in Roethlisberger, F. J., and Dickson, William J. *Management and the Worker*. Harvard University Press, 1941; see especially pp. 232-235.

management participation by workers. One company using such a procedure calls it "multiple management."¹² An important development of the war emergency has been the formation of management-labor committees through encouragement from governmental agencies. In multiple management and in war emergency management-labor committees the supervisor is a key man.

CRITERIA OF GOOD SUPERVISION

It is difficult to establish exact criteria for determining the merit of supervision. However, certain principles are generally recognized. Interestingly enough these principles have been most succinctly stated by writers in the field of education, a field in which supervision has been an acknowledged problem much longer than it has been an obvious one to industrial leaders.

In brief summary form it may be said that supervision is good when it (a) is democratic, (b) is well planned, (c) is based on sound theory, (d) develops orderly procedures of thinking and studying, evaluating, and improving products and processes, (e) proceeds from a clear understanding of the purposes and functions of supervision, and (f) its merit is recognized by its results.¹³

The purposes and functions of supervision in relation to industry have been set forth more clearly by writers interested in industrial application of supervision than have the basic criteria for evaluating supervision. This is probably true because purposes and functions appear more concrete than basic principles. While basic principles provide the best means for evaluating procedures, statements of functions and purpose provide secondary criteria for judging merit. Spriegel and Schulz outline the purposes and functions of industrial supervision as follows:

¹²McCormick, C. P. *Multiple Management*. Harpers, 1938.

¹³Adapted from Barr, A. S., Burton, W. H., and Brueckner, L. J. *Supervision*. Appleton-Century, 1938, p. 64 ff.

The supervisor has three main tasks: to organize, to deputize, and to supervise. Every responsibility that the supervisor can possibly have may be classified under one of these three headings. To organize means planning the work of the department and of the men in an orderly manner with due regard for the responsible relationship of one person to another, so that there is a minimum of friction and a maximum of production. If the supervisor's department or group is small, there is little need for extensive organization. To deputize means giving someone else the responsibility and authority to do something which the supervisor himself does not have the time or ability to do efficiently. The supervisor confers upon his subordinate the same authority and responsibility that he himself possesses—but with a more limited scope. In this task of the supervisor it is important to remember that, even though someone else is deputized to do the task, the supervisor, in the last analysis, is responsible for getting it done. He must follow up from time to time to see that the person deputized is carrying out the work. Every supervisor must remember he can deputize the work, but, in the last analysis, he cannot deputize his responsibility for getting the work done. To supervise means that the supervisor follows up to see that the work he has organized and deputized is carried out, that the plans that have been made are put into effect on time and in the proper manner. Supervision involves, to the highest degree, the proper handling of people and a sound understanding of human nature.

Some supervisors are weak in organization; they are unable to see their work in its broader aspects and to break it down into its details. Other supervisors are weak in deputizing or delegating. They hate to yield any of their responsibilities to others to carry out for them; they want to keep all their responsibilities to themselves. Few supervisors realize that they must not spread themselves too thinly, and that, frequently, they have subordinates who are better equipped than they themselves to do certain phases of their work. Good supervisors use their men to the best advantage. Again there is the supervisor who willingly gives others his responsibility but never provides them with the necessary authority to get results. Delegation involves not only delegating responsibilities to others but also conferring the authority to carry out these responsibilities. Then there is the supervisor who delegates his responsibilities and authority according to a sound plan, but fails to follow up the men to whom he has delegated the responsibilities. No supervisor can say, "the responsibility is yours," and then forget it. The amount of follow-up will depend on the amount of work and the

individual deputized. Some supervisors fall down on the supervising end. They do not understand human nature and are unable to handle their men satisfactorily. To supervise effectively demands the highest degree of leadership. Supervising calls for the building of morale, the development of co-operation, the use of proper instructional methods, the ability to discipline men, and above all a sound knowledge of human nature.¹⁴

DELEGATION OF RESPONSIBILITY

We have already indicated that supervisory responsibility is executive in origin and nature. Supervision becomes a task of the plant superintendent, department head, or foreman through delegation. Good organization requires that deputizing and delegating be carried all the way along the line to sub-foremen, group leaders, key operators, and to the individual workmen themselves.

As the process of delegation is carried along the line to others, some responsibilities must be finally lodged in certain members of the supervisory staff, while some can be shared with others and some of these, in turn, can be further delegated. Every firm should establish the line of delegation, and final responsibility for every task, function, and activity should be indicated. Channeling of supervisory authority in such manner not only establishes the points at which investigation should start when things go wrong, but also makes evident the contact points for active day-to-day relationships between leaders and co-workers. Leadership talent may thus be utilized throughout the whole organization from top to bottom.

As examples of responsibilities which cannot be further delegated after they have been assigned as part of a supervisory job, the following have been suggested: (a) adjusting grievances, (b) control of scheduling, (c) requisitioning materials, (d) settling disputes among workers, and (e) reporting conditions to a superior officer. The following are examples of responsibilities which can be shared with subordinates: (a) encouraging co-

¹⁴Spriguel, William R. and Schulz, Edward. *Elements of Supervision*. Wiley, 1942, pp. 2 and 3.

operation, (b) accident prevention, (c) informing and training workers, (d) finding ways of reducing costs, and (e) getting quality production. Some responsibilities, such as (a) efficient utilization of materials, (b) promoting safe operation, (c) inspecting materials, (d) keeping records, and (e) inspecting tools and equipment, can be delegated all the way along the line to individual workers.¹⁵

SELECTION AND TRAINING OF SUPERVISORS

The projection of top-management personality, philosophy, policy, and authority through the activities of minor executives and supervisors requires careful planning and studying on the part of major executives. It not only calls for a thoroughly validated process of selection which takes into account the capacities, personal characteristics, and attitudes of the prospective supervisor, but should include plans for preparatory and on-the-job training. Such training plans are necessary to insure that company policy is being carried out in the supervision of workers and, equally important, to make certain that workers' reactions are accurately reported to top-management. To succeed, the training of supervisors must be well grounded in company policy; little can be accomplished through a hit-or-miss approach.

A properly functioning training and selection program for supervisors not only provides a better supervisor in his initial efforts, but such a program has a salutary effect on those already holding such jobs. Ordinarily the training of prospective foremen and other supervisors can be carried forward more satisfactorily as a separate program from that provided by in-service training of those already engaged in supervisory work. However, smaller companies have reported excellent results with a joint program. Lack of experience and background on the part of new recruits may be a handicap if the program is geared to the experienced supervisor; however, this may be overcome in part if older men

¹⁵Adapted from Beckman, R. O. *How to Train Supervisors*. Harper and Brothers, 1940, p. 105,

are asked to accept responsibility for fostering the development of the newer men. Such an arrangement requires the older men to be on the alert to keep ahead of the newcomers and thus stimulates mutual growth.

In speaking of foremen training classes within a company it is usually more desirable to refer to them as "training conferences," "supervisors' conferences," or "foremen's conferences." In any event, the conference method should be used. Some companies encourage the formation of foremen's clubs which operate on a self-directed basis. These should not be in the company program and usually are more successful if the membership is composed of men from several different companies in the community. Sharing of knowledge should be the objective of independent foremen's clubs.

Much has been written about the training of supervisors in recent years, and the giving of such courses has been actively promoted by the Federal Board for Vocational Education and its affiliated state boards for vocational education. Some companies have co-operated closely with public agencies, while others have developed independent training plans. It is difficult to determine which method has produced the best results. Those developed in co-operation with public agencies are more extensive, but those developed independently by some of the leading industrial concerns are usually better in quality. Much of the available material on supervisory training is excellent, some of it may be described as good, but a considerable amount of the published material on supervisory training is extremely superficial. A company planning to engage in supervisory training should study available materials with extreme care.

Active interest in supervisory training dates back to World War I. The suggestions of Charles R. Allen, as reported in his books *The Instructor, the Man, and the Job*, and *The Foreman and His Job*,¹⁶ attracted widespread attention during the 20's. An-

¹⁶J. B. Lippincott, 1919.

other leader in the early period of development of supervisory training was Frank Cushman, who has presented the results of his wide experience in two excellent books: *Foremanship and Supervision*¹⁷ and *Training Procedures*.^{17a} Glenn Gardiner in his book, *Better Foremanship*,¹⁸ gives some excellent down-to-earth discussions and conference outlines which can be recommended for use in introducing foreman training. Among the many excellent books recently published, that of Spriegel and Schulz¹⁹ is outstanding. Their book contains a good bibliography of recently published works which are worthy of serious consideration. The National Industrial Conference Board report entitled "Selecting, Training, and Upgrading,"²⁰ contains examples of company plans for supervisory training which should be examined carefully by any company planning to inaugurate supervisory training. A company after examining available material may find it difficult to decide upon the proper material for organizing supervisory training. It has already been stated elsewhere in this chapter that suggestions offered by workers and their immediate supervisors usually provide excellent topics for initial conferences. After training conferences have been inaugurated, most companies find little difficulty in providing material for study and discussion because topics suitable for later discussion arise in every conference.

PLANNING SUPERVISORY CONFERENCES

When a conference is anticipated, those who are to take part in it should be notified in advance, and at least the topic assigned for discussion should be announced sufficiently far in advance to give the participants an opportunity to prepare for thoughtful discussion. Frequently, outlines are distributed with the understanding that the points covered in the outline will be given con-

¹⁷Wiley, 1927, 1938.

^{17a}Wiley, 1940.

¹⁸McGraw-Hill, 1936.

¹⁹*Op. cit.*, Wiley, 1942.

²⁰*Studies in Personnel Policy*, No. 37, 1941.

sideration. These outlines may be brief or they may be developed in detail as circumstances warrant. The following is a sample of an outline used by the Murray Corporation of America for a series of discussions.

TOPIC: BUILDING THE WORKING FORCE

Objectives of Meeting

- (A) To call attention to the benefits to be gained through fitting the worker to the job.
- (B) To discuss methods of assigning tasks and responsibilities.
- (C) To show the importance of supervisors being qualified as teachers; to study the value of employee training, and the steps involved in the proper instruction of the worker.

Outline of Discussion

(A) *Fitting the Worker to the Job*

- 1. How to analyze the job requirements with regard to:
 - (a) Experience necessary
 - (b) Physical needs
 - (c) Mental requirements
- 2. How to fit the worker to the job.

(B) *Assignment of Tasks and Responsibilities*

- (a) Make instructions about work in a clear, simple, and unhurried manner.
- (b) Explain the danger points of the job and tell about the proper care of tools, equipment, and materials.
- (c) Work place should be in the neat condition the worker is expected to keep it.
- (d) Explain that ordinary tools are to be furnished by the employee.
- (e) Give complete, clear, simple instructions about tasks.
- (f) Explain responsibilities that new employee assumes when starting work.
 - (1) Quality of product
 - (2) Quantity of product
 - (3) Company tools in possession

(C) *Showing the Worker How and Why*

1. Assuming the supervisor has full knowledge about the job himself, there are several points he should check in his own preparation before actually starting to instruct the new worker.
2. The new worker should be made to feel at ease by using a friendly, interested, and helpful attitude.
3. Actual instructions should be given in slow and patient manner.
4. Do not begin instructions until all signs of nervousness have been eliminated.
5. Five steps in training:
 - (a) Tell him how
 - (b) Tell him why
 - (c) Show him how
 - (d) Test him out
 - (e) Check and supervise
6. To tell a man HOW a job is done is to explain the steps in a logical sequence. The method should be clearly outlined.
7. Instructions should be in the form of a request or question. It is better to say, "Will you do it this way?" rather than, "Do this, this way."
8. Instructions should be:
 - (a) Simple
 - (b) In terms that are easily understood
 - (c) Made slowly so that he has time to absorb every idea
9. Supervisor should be patient. It must be assumed that the worker knows far less about the job than the instructor and may not grasp the idea as quickly as he thinks he should.
10. Instructions should be repeated several times if necessary.
11. After giving the necessary instructions it is better to ask him to explain to you what has just been told him. This method is better than asking him, "Now do you understand?" This question can easily be answered by "Yes."
12. If a man has an understanding of WHY the job is performed according to the specified method, he will be in a much better position to go ahead and do it. The reasons for this are:

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- (a) Because the instructions will be more easily understood.
 - (b) The job will be more interesting if the worker knows the reason why.
 - (c) The worker will accept instructions more readily because he will be more open-minded.
 - (d) Mistakes will be avoided.
 - (e) The worker will remember instructions more readily, and co-operate more closely with others whose work is related to his.
 - (f) It will satisfy the worker's natural curiosity and it is more economical to tell him rather than have him experiment.
13. Visual Aids—SHOWING HOW—are better than telling him how to do the job. It is easier to remember the things he sees than the things he hears. Therefore, a demonstration is better than telling him about the job. Points to consider are:
- (a) Do the job slowly enough so that he can see clearly each operation.
 - (b) Show him the simplest, easiest, shortest and most efficient way to perform each operation.
 - (c) Show him the danger points in doing the job.
 - (d) Repeat the demonstration several times until he thoroughly understands the operation.
 - (e) Have him ask questions during the demonstration.
14. After the worker has been told HOW, told WHY, and SHOWN HOW it will be necessary to test him out before he is permitted to go ahead on his own. Have the man go through the operations of the job while watching him to make sure he thoroughly understands each operation. Points to be considered are:
- (a) Errors to be corrected at once before they become fixed habits.
 - (b) Mistakes should be corrected in a calm, thorough, and patient manner.
 - (c) Asking a man questions will indicate his understanding of all the facts about the job upon which his judgment and decisions will be based.

- (d) The new worker should be made to feel at liberty at all times to ask questions and bring his problems to the supervisor.
- 15. The new worker should be supervised closely to see that he carries out instructions.
Points to be considered are:
 - (a) The worker should not get the impression that the supervisor is merely critical. Be patient and helpful.
 - (b) During the checking period an opportunity should be given the worker to ask further questions: instructions may be added to those already given him and he should be told of the fine points and short cuts of the job.
 - (c) Safety factors should be emphasized.
 - (d) The checking period should end when the worker needs only normal supervision.²¹

THE CASE METHOD

It is impossible within the limits of this presentation to discuss all of the techniques for organizing supervisors' conferences. However, the case method is one of the more successful techniques and merits special mention. The success of the case method is probably related to the fact that in its use the conference group is provided with objective material for study which appeals to practical-minded men. It should be noted that all material for instruction cannot be formulated in case studies, nor should attempts be made to do so. However, supplemented by other methods of presentation, the case method is an excellent approach to supervisory training. In essence the method consists of presentation of cases to supervisors in conference and all matters of principle, policy, and decision relating to the case are discussed.

Like all other methods of presenting material in discussion groups, the case method frequently suffers as a consequence of the tendency for group discussion to wander off on unimportant details of the cases presented. One way of directing training conferences is the preparation of questions for discussion relating to

²¹*Studies in Personnel Policy* No. 37. "Selecting, Training and Upgrading." pp. 69-71.

each case. Some companies have found that the statement of questions in true-false form frequently makes possible rapid disposal of points on which there is agreement, thus conserving time for the debating of issues involved on which there is division of opinion. The following is a sample of the use of true-false questions in the conference case method as reported by the Murray Corporation of America.²²

Gus is 47 years of age. He was divorced from his first wife after eight years of married life. The court gave his wife jurisdiction over their two children. The divorce was granted on grounds of incompatibility and mental cruelty on the part of Gus. He remarried after two years and has apparently gotten along with only fair success in his second marriage in that his wife has complained to her friends that she dare not voice her own opinions. Gus demands that she follow his ideas. This has resulted in her feeling crushed at times.

Gus has been foreman of a production department for 17 years. He is known throughout the company as a hard-hitting foreman who is tough on his men but gets things done. When he is under a great deal of pressure, he raises his voice, becomes increasingly profane and proceeds to get his men keyed up to a higher pitch. An occasional employee has dared to be indifferent toward Gus when he becomes highly emotional, but such employees are either dealt with in terms of terrific "bawling out" or in a few cases they are fired right on the spot.

Recently, due to the expansion of the department, Gus made one of his men, Herb, a sub-foreman. Herb was a quiet, unassuming man of 40 who had been in the department for 12 years. He held the confidence and respect of the men and was a natural choice for the job. A few weeks after his new appointment, Gus wanted to change some of the equipment, which would result in more volume but give a more crowded working condition and increase accident hazards. Herb quietly informed Gus that he thought it was a wrong move and stated his reasons, adding that the men would be unhappy about it. Gus immediately took Herb's attitude as an indication that his promotion had gone to his head. He walked about the plant condemning Herb in a loud voice and vowing that he was still boss here and that he was going to run the department as he saw fit.

²²*ibid.*, pp. 71, 72.

This resulted in the majority of the employees coming to Herb and telling him that he was right and that they were back of him. Gus became furious and told Herb that he could either do things his way or get out.

Below are statements which apply to this situation. If you agree with the statement, place a plus (+) sign before it. If you disagree, place a minus (—) sign before it.

- _____ 1. Herb should resign at once.
- _____ 2. Gus should be told by his superior that he cannot fire Herb.
- _____ 3. Herb should go to top management with the situation immediately.
- _____ 4. Herb should co-operate with Gus even though he disagrees with the procedure.
- _____ 5. Herb should refuse to discuss the situation with employees.
- _____ 6. Gus should be told by his superiors that his method of handling this situation was wrong.
- _____ 7. Gus should be told what the wise procedure is in such situations.
- _____ 8. Gus should have discussed this situation privately with Herb.
- _____ 9. Gus had a right to expect Herb to co-operate in carrying out his plans.
- _____ 10. Gus would likely "blow up" or "go to pieces" if told that he was wrong in what he did.
- _____ 11. Herb should have prevented Gus from behaving as he did by agreeing with him immediately without letting him know what he thought.
- _____ 12. Gus is a driver and has never learned to lead men.
- _____ 13. The ability to command the spontaneous loyalty and respect of men is a major function of the supervisor.
- _____ 14. Supervisors who use "yelling" and "telling" methods should be considered failures even though they do get a fair amount of work out.

EXECUTIVE ABILITY

- _____ 15. Foremen who do not "get tough" with their men are likely to be thought of as "having gone soft" by their men.
- _____ 16. A good supervisor is fair but stern in dealing with his men.
- _____ 17. A foreman should never discuss differences between supervisors with employees.
- _____ 18. One chief difficulty with Gus is that he lacks a sense of humor.
- _____ 19. Gus should learn to ask more questions and become a better listener. He has formed the habit of always being the one who gives advice.
- _____ 20. Gus would be a good foreman if he could learn to relax and develop a friendly attitude when he is thwarted or blocked.
- _____ 21. Gus wants power over his men instead of power with them.

Executive Control of Personnel

IN THE OPERATION OF A BUSINESS ENTERPRISE, CONTROL IS HIGHLY important. Numerous devices and techniques have been developed for control of finances, materials, and methods of production. The devices of administrative control relating to finances, materials, and methods of production are fairly well standardized; therefore, management responsibilities with respect to them can usually be delegated to minor executives.¹ But in the control of personnel, methods are less exact and call for a greater amount of attention on the part of top-ranking executives. Personnel policies and practices must be continuously under review even though administration of personnel problems is delegated to supervisors.

SELECTION, TRAINING, AND UPGRADING

The problems involved in personnel control will be fewer when careful selection procedures are used. Carefully selected employees adjust themselves more readily to their work than do those who are haphazardly selected. Among carefully selected employees, job satisfaction is higher and morale is less likely to deteriorate. Methods of careful selection have been described at various points in this book; therefore, it is only necessary to say in passing that the executive should be constantly on the alert to make certain that those to whom the responsibility is delegated are using the most effective personnel selection procedures.

¹See Glover, John J. and Maze, Coleman L., *Managerial Control*, Ronald Press Company, New York, 1937.

Training is usually considered primarily as a means of imparting skills and knowledge. This is an essential use of training; but in a broader sense, training may be used to bring about desired changes in the individual employee. It is rather surprising to find that few executives realize the full power of training. Even so important an element in employee personality as attitudes can be modified by properly organized instruction. However, it must be noted that the organization of instruction for the purpose of modifying attitudes requires greater insight into the peculiarities of human nature than does organization of instruction for the purpose of imparting skills and knowledge. Unless attempts to control employees through the development of attitudes are carefully organized, attitudes not intended, often of an unfavorable nature, may be created.

Orienting supervisors on company policies, and providing information for supervisors on company principles and purposes is an excellent example of proper use of instruction as a means of personnel control. This is a form of upgrading which most companies should use more liberally than is being done at present. In-service training can be used not only as a means of improving methods of production, but also as a means of correcting difficulties in performance and as a means of bringing about safer operation. When using training for the purpose of upgrading workers at various levels, the plan of training should be presented to the worker as something the company is providing for his benefit; training should never be used for disciplinary purposes.

PROMOTIONS, TRANSFERS, AND DISCHARGES

While training is the key to many problems in personnel control, other techniques must be used in a supplementary manner to augment the performance resulting from training. Upgrading through training brings its own reward in the form of satisfaction in work more skillfully and effectively performed. However, the net effect is much greater when the worker is able to foresee pos-

sibilities for promotion. This does not mean that the hopes for promotion which employees hold can always be rewarded. Promotions can be few or many, but if properly handled, they can be used as a means of developing a spirit of wholesome competition.

Where possible, promotion should be made as a reward for length of service, but above all else, the employee should be made to realize that promotion is a reward for quality of service. When preference must be shown in making promotions, that preference should always favor the individual who has demonstrated ability to do superior work. Preference should never be given for personal reasons. Friendship, fraternal affiliations, religion, or family ties should be ruled out of consideration when evaluating an employee for promotion. However, such factors should not preclude recognition of merit, because merit should be rewarded wherever found.

Many companies have found that the most satisfactory basis for determining eligibility for promotion is a combination of merit and seniority. In such a combination, seniority records will of course be objective; therefore, effort must be made to provide equally objective evidence of merit. This means that comprehensive production records for every employee should be maintained. But production records alone are not enough; periodic merit ratings by supervisors should be made, and these should be recorded cumulatively for reference when occasion for promotion arises. In addition, a case record file for every employee should be kept as a sort of "catch all" for miscellaneous information: records of accidents, regularity of attendance, time lost because of illness, special citations, suggestions made by the employee, disciplinary actions, participation in employee activities, courses of instruction taken within and outside the plant, and any other information which might be interpreted favorably or unfavorably in considering suitability for promotion. Some companies have even found it helpful to record participation in community activities and to

include special information relating to the worker's family and home life.

It is axiomatic that success on one job does not necessarily indicate the degree of success that will be attained on another job, especially if the new job differs from the old job to a considerable extent, or if it calls for the application of abilities or temperamental characteristics not involved in the old job. One way to obviate the creation of misfits through promotion beyond capability is the use of tests for the selection of men to be considered. These tests may be used as a supplement to seniority and supervisors' recommendations. One company, which has enjoyed extremely satisfactory experience in promotions, posts notices of jobs to be filled requesting employees interested to report for interview, and later requests all applicants to take a competitive examination. In this particular company the employee promoted is required to take special training relating to the new job. All employees who are promoted are placed on a probationary basis and if unable to demonstrate ability to handle the new job, the employee is returned to his former job.

Regardless of the evidence used in selecting an employee for consideration for promotion, decision on suitability of the employee should be made by a committee. The immediate supervisor, a representative of the personnel department, and a representative of top management constitute a satisfactory committee for considering men for promotion. Where employees are organized, it might be desirable to have a representative of the union as a member of the committee. In operation, such a committee should establish well defined criteria for judging merit and should evaluate each case in a manner that will permit defense of decision if for any reason the decision is challenged or called into review.

It may occur that the qualifications required on a particular job are not possessed by anyone within the department in which a vacancy exists. In such instances transfer of an employee from another department should be considered. This procedure be-

comes extremely difficult in companies where departmental seniority is in effect. For this and several other reasons, departmental seniority is regarded as undesirable by most companies. A company should be free to choose on a merit basis to the greatest possible degree; therefore, company seniority should outweigh departmental seniority. In some instances it may be desirable to fill a position by selecting someone outside the company. As a general principle, promotion from within is a good practice to follow, but if better talent is available elsewhere, a company should be free to get that talent. In fact, it is good practice to inject new blood into an organization from time to time.

In preparation for future needs some companies have found it desirable to follow a plan of having understudies for men in key jobs. A famous industrial engineer has suggested that in addition to having jobs understudied, there should be a three-way plan of job instruction to prepare for job shifts and promotions. Under that plan a worker is presumed to be studying his own job to improve performance in it, and, at the same time, studying the job ahead as well as training someone as an understudy for his present job.² Excellent as this plan may seem, it cannot be used in all of its aspects in many types of industrial organization. However, the principle of continuous training should be applied wherever possible.

The incentive value of promotion is not limited to possible increase in earnings. Promotion, in some instances, may be one step in the direction of increased pay that may accrue when later promotion occurs. Promotion has prestige value, may give added satisfaction through opportunity to exercise limited authority, may give the person promoted an added sense of responsibility and a feeling of personal importance, or may provide greater independence and freedom from minor regulations. All of these are rewards; they have incentive value and should be considered

²Gilbreath, Frank B. and Lillian M., "The Three Position Plan of Promotion," *Annals of the American Academy of Political and Social Sciences*, Vol. 65, No. 155, May, 1916, pp. 289-296.

carefully in providing lines of promotion within an organization. However, nonfinancial rewards should not be used as a substitute for financial ones where the latter are warranted. The rate of pay for a particular job should be determined through job evaluation and should not be varied to provide a special reward for a particular employee, nor should it be varied to buy cheaply the services of an employee.

Properly conceived and administered, a promotion system becomes an important tool for executive control of personnel. The aim of such a plan in addition to providing satisfactory employees for specific jobs, should be that of developing a group of loyal employees whose continued association with the company reduces turnover and makes for better morale. It is easy to understand how this can be accomplished in the case of employees promoted, but those not promoted may react unfavorably unless the plan of promotion and its application are fair and just and understood by all employees. This suggests that a carefully formulated plan fully explained to employees is indicated as desirable and that extreme care should be exercised in considering every case. Not all employees expect to be promoted, but many workers develop antagonism when they observe incompetent associates being elevated to positions of higher rank. The attitude of employees suggests another factor to be considered in making promotions; namely, other things being somewhat equal, the employee who commands the greatest respect of his fellow workers should be chosen for promotion.

TRANSFERS

Transfers of employees from job to job, from department to department, and in some instances, from plant to plant within the same company are inescapable in organizations employing a large number of persons. Some transfers become necessary to meet needs and desires of the worker, while others arise out of company needs. Changes in the physical condition of the employee, family

circumstances, preference for certain hours or working conditions, trouble with other workers, dissatisfaction with supervision, opportunity to develop new skills, possibilities of earning a higher rate of pay or a larger bonus, a natural desire for change and variety of experience, and numerous other factors influence the employee in leading him to request transfer. Changes in personnel needs, discontinuance of the department, temporary or long-time changes in availability of materials, need for particular skills, balancing of shifts, providing variety of experience to build up a back-log of skills, better placement of workers, and many other factors make it desirable for the company to transfer employees from time to time.

Numerous problems arise in connection with transfers. In making transfers to correct unsatisfactory conditions, new problems may be introduced. These should be anticipated as far as possible, and each transfer should be considered on an individual basis. If transfer is requested by the worker, the request should be granted unless there are good reasons for refusing. Where refusal is necessary, the reason should be clearly explained to the worker. If the transfer is initiated by the company, the employees involved should be fully informed as to the reasons, and any objection on the part of the employees should be given consideration. If it appears that making transfers will result in a grievance, expressed or latent, the difficulties involved should be ironed out in advance.

Seniority and wage problems may be involved in transfers. If so, they must be given special consideration and adjustments made which are satisfactory to individual employees and to the union, if the company is operating under a collective contract. Usually the contract with the union covers such points. If it does not, management should seek coverage in the next contract, and in the meantime arrive at a working agreement with the union committee.

The initial step in transfers may be taken by the employee, may originate with the head of the department who wishes to re-

lease an employee, may come from a department head in the form of a request for an employee working in another department, or may originate with the personnel department. In any case all transfers should clear through the personnel department. In carrying forward plans for transfer, the personnel department should confer with the heads of departments releasing and departments acquiring the employee or employees. The employee, in making a request for transfer, should ordinarily clear through the foreman, but he should be permitted to present his request directly to the personnel department if he so desires.

In so far as they can be established, general policies relating to transfers should be revealed to employees. Under most circumstances, the supervisor of a department should not be permitted to establish rules for transfer whether inter-departmental, or intra-departmental until such rules have been approved by the personnel department as being in accord with general policy. All special regulations applying to a special department should have top management approval as a supplement to, or as a variation from general policy. These, in turn, should be revealed to employees involved, and the reason for their establishment explained. Transfers may become a greater source of employee dissatisfaction and grievance than promotions if carelessly administered because a greater number of employees is usually involved, and because transfers are usually related either directly or indirectly to wages, work conditions, seniority, and personality conflicts.

DEMOTION

Frequently the transfer of an employee or a group of employees represents a demotion which may be temporary or permanent. In most instances such transfers become necessary because the company is confronted by circumstances which make it impossible to provide equivalent work. This form of demotion is not the antithesis of promotion. However, there are conditions under which it becomes desirable to use demotion as a readjust-

ment downward in the same manner that promotion is used as a readjustment upward.

Demotion or discharge becomes necessary when a worker cannot satisfactorily meet the requirements of his job. If the worker has been promoted on a probationary basis, then a choice between returning to the old job or being transferred to another department may be left to the worker without causing serious embarrassment either to management or the worker. If the worker's age or health prevent him from doing satisfactorily the work he has previously done, then a company may be doing the worker a service by offering him a job of lower classification. In some instances companies have used demotion in a disciplinary manner and have given the worker the choice of voluntarily leaving the service of the company or accepting a demoted status.

Demotion because of health and age seems to have been satisfactorily used by business organizations. Demotion for failure to live up to specifications prevailing at the time of selection or promotion has been less generally used than discharge. Demotion as a disciplinary measure has not been widely used. It is probable that demotion has not been extensively used either in the past or at present because discharge was easy in earlier periods before unionization became prevalent, and because demotion runs contrary to the principle of seniority in most collective agreements in effect at present.

The element of pride involved makes demotion a difficult practice to apply. A hope commonly expressed by employees is that "they will not wind up with the company pushing a broom or punching a watchman's clock." Such statements do not indicate disrespect for janitors' and watchmen's jobs but are an expression of abhorrence for loss of prestige. The practice of many companies has developed an attitude in employees that such jobs are passed out as charity to employees who have otherwise lost their usefulness to the company. To be obliged to move backward because of lack of ability or because of disfavor created by injudicious

behavior or by mistakes causes the employee to lose caste with his fellow workers. It would appear, therefore, that transfer should accompany demotions. If the worker is transferred, he is theoretically given an opportunity to make a new start in new surroundings; he is thus enabled to avoid the distraction of being constantly reminded of unpleasant circumstances which he wishes to forget.³

QUITS, LAYOFFS, AND DISCHARGES

Labor turnover is costly; therefore, most companies seek to maintain a stable working force. The sources of labor turnover are quits, layoffs, and discharges. The Bureau of Labor Statistics defines these as follows:

A quit is a termination of employment generally initiated by the worker because of his desire to leave, but sometimes due to physical incapacity.

A discharge is a termination of employment at the will of the employer with prejudice to the worker because of some fault on the part of the worker.

A layoff is a termination of employment at the will of the employer without prejudice to the worker.⁴

Good management seeks to reduce voluntary separation to a minimum. Loss of manpower through voluntary separation has been brought under control by some firms by the use of the very logical device of exit interviews. Such interviews serve two important purposes: (a) some workers who seem desirable are salvaged for the company and are returned to their jobs or transferred to jobs on which they can make better adjustment, and (b) reasons for desire to quit are collected thus making possible an intelligent study and correction of causes of the desire to quit. Examination of causes should include material in addition to that collected through exit interviews. In large companies an examina-

³A somewhat contrary view of demotions is expressed by other writers on personnel problems. See particularly Spriegel, William R. and Schulz, Edward, *Elements in Supervision*, Wiley, 1942, pp. 133, 134.

⁴For a discussion of methods of computing labor turnover see Yoder, Dale, *Personnel Management and Industrial Relations*, Prentice Hall, 1942, pp. 270-291.

tion of test scores, education, work histories, age, type of job, length of service, wage levels, and similar points of reference may reveal important correlations. Sometimes forces lying beyond the qualifications of the individual and factors other than working conditions within the company may be producing adverse attitudes on the part of the workers. Demand for workers, reflected in rate of pay and working conditions in other companies in the community, is one of the chief outside forces likely to be found.

Several kinds of layoff are recognized by the Bureau of Labor Statistics. For all general purposes these may be reduced to two types: (a) layoff in which the worker's name is removed from the payroll, and (b) layoff in which the worker's name is retained on the payroll and the worker remains subject to call. Layoffs are likely to have a greater economic significance than other forms of separation. In general, layoffs reflect a temporary or permanent decline in production. Income of workers is stopped and brings a reduction in spending which in turn necessitates a reduction in production elsewhere thereby causing layoffs in other companies. Thus a cycle of unemployment and decline in production is started, which, if continued, results in depression. The social responsibility of the employer to maintain relatively uninterrupted production goes beyond his immediate obligations to the workers with whom he has entered into agreement to co-operate for the economic profit of both. Farsighted executives now realize that instead of striving to balance operation costs and income by layoffs, they should strive to provide high production levels in order to avoid the necessity for layoffs.⁵

It is erroneously believed by many that organized labor insists on seniority as the only factor to be considered in planning layoffs. The fact is that union-company agreements vary greatly on this point. "There is a mistaken impression among some managements that all unions seek to make plant-wide, unrestricted seniority the

⁵This point of view is reflected in the proposals contained in "Preparing for High Levels of Employment and Productivity," prepared by the Committee for Economic Development, Washington, 1942.

sole basis of promotion as well as the determinant of priority in layoff. Examination of numerous collective agreements lends little support to this conception. Alert union leaders, like alert managers, recognize that seniority is one, but only one, of several important considerations. Others include abilities and fitness for the job, training, interest, and in the cases of layoff, number of dependents. Hence seniority may be well used within the framework of these limitations as one basis for systematic promotion."⁶

Management should insist on agreements which permit retention of workers on the basis of merit and general acceptability to the company. However, such an agreement should not be used as an excuse for faulty selection. By using better methods of selection and promotion, a company can avoid the necessity of becoming saddled with unsatisfactory employees. A company that has exercised poor judgment in selection has no right to claim the privilege of correcting its errors by layoff, at the first opportunity, of those who represent bad guesses.

At one time many short-sighted employers tried to solve all their personnel difficulties by freely firing employees, both because of individual weaknesses in particular employees, and as an example to other workers. Discharge can no longer be indiscriminately used for disciplinary reasons. This should not present serious problems for able management because discharge was never a wholly satisfactory disciplinary device. Discharge provides for the release of an employee who seems undesirable, but in replacing him an equally undesirable person may be hired. Most companies find it more profitable to redirect the activities of an employee already on the payroll than to risk equal or greater difficulties in replacing him. Be that as it may, the National Labor Relations Act and typical provisions of collective agreements make it necessary to use discharge only as a last resort, whether applied for disciplinary reasons or used to dispense with incompetent workers.

⁶Yoder, Dale, *op. cit.*, p. 464.

Responsibility for discharge should not be placed in the hands of supervisors who have direct charge of employees. The supervisor will of course find it necessary to recommend, on occasion, that an employee be discharged, but final decision should be made after the case has been reviewed by a committee. A suitable committee to consider discharge recommendations would include the immediate supervisor of the worker, a representative of the personnel department, and a representative of top management. Unless a committee plan is used, diverse practices with respect to discharge will develop within the company, and unless careful consideration is given to each case, appeals to the National Labor Relations Board are likely to become embarrassing to the company.

Several investigations of supervisors' recommendations for discharges reveal that employee attitudes and vaguely defined personal characteristics of the employee are likely to be stated as causes of dissatisfaction with the employee by the supervisor. Supervisors may report that a particular employee is "hard to get along with," "always making trouble," or "insubordinate." In the mind of the supervisor these represent good reasons for dispensing with the services of an employee, and they may well be satisfactory reasons. However, unless the supervisor can illustrate by giving incidents to substantiate his claims, the company is placed at a disadvantage in releasing the employee. Records of incidents to substantiate claims should be maintained by the supervisor, and management should take the point of view that mere claims without evidence to support them are insufficient reasons for discharge.

Despite the fact that outright release of an employee should be used sparingly as a personnel control procedure, there are some forms of behavior which are considered sufficient cause for discharge by many companies. These include falsification of records, theft, negligence which endangers the lives of others, assaults on other workers, and similar forms of behavior which would be adversely considered in a court of law. While it may be assumed

that employees will take for granted the fact that they are subject to discharge for acts that have legal significance, there may be other reasons for summary dismissal. Company policy should establish the nature of those violations which call for summary dismissal and should make clear to employees what these are.

Most companies exercise extreme care in selecting an employee. The discharging of an employee should be handled with equal care. Written notices, payroll slips, and the like are not conducive to good relations. The employee to be released should be informed personally of the fact by a company representative, the reasons for discontinuance of service should be explained, and the person being discharged should be left in as satisfactory frame of mind as possible. This is a difficult task and should be handled by someone skilled in dealing with such matters. Otherwise, ill will created tends to cause the individual to discuss the company publicly in an unfavorable manner.

Cases not involving clear violations of rules yet calling for summary dismissal should be handled as individual problems. Frequently, it may be found desirable to seek the co-operation of the union grievance committee in considering a case that has been recommended for discharge. Companies who have used this procedure are often surprised to learn that union committees not only agree with many of the recommendations for dismissal but sometimes express the opinion that dismissal has been too long delayed. Fellow workers usually recognize the need for discharge if the case is a clear cut one as readily as do representatives of management.

TARDINESS AND ABSENTEEISM

Tardiness and absenteeism are old problems in business and industry just as they are in schools, colleges, and in any activity in which the human element is involved. Recent interest in tardiness and absenteeism has arisen out of a recognition of the extreme importance of man hours in production. The causes of tardiness and absenteeism may be trivial or of serious nature, they may be avoid-

able or unavoidable, and they may reflect faults in management as well as in workers. Executive control of these disruptions of production requires approximately the same techniques as does accident control. Recommended action involves the following steps: (1) study the causes, (2) eliminate causes over which the company has control, (3) apply group training techniques to develop an understanding of the importance of continuity of production, (4) give special attention to individuals who do not respond to group training, (5) eliminate the absent-prone and the tardy-prone employee in the same manner that accident-prone employees are eliminated, (6) give continuous attention to the problem; it is never fully and completely solved.

CONTROL OF OUTPUT

Executive control must extend to quality and quantity of individual output. This control must be exercised indirectly by delegating responsibility for it to supervisors. However, top management must insist that the supervisor use proper techniques for maintaining standards of quality and quantity. The techniques which have been found most useful are: (1) methods analysis going beyond the work of time and motion study experts to the point of eliciting co-operation of foremen and workers in the improvement of methods, (2) clear-cut statement of standards which can be understood by workers, (3) control of materials, (4) adequate inspection, (5) application of statistical analysis to determine evidence of restrictions of output and abnormal variations in quality.⁷

Both quality and quantity of output are often related to the wage payment system. Many incentive systems have been developed which allegedly spur workers on to greater production. All

⁷See Maynard, Harold B. and Stegmerton, G. J. *Operation Analysis*. McGraw-Hill, 1939, pp. 1-71; Spriegel, William R. and Schulz, Edward. *op. cit.* pp.167-179; Yoder, Dale, *op. cit.*, pp. 282-287; Mathewson, S. B. *Restriction of Output Among Unorganized Workers*, Viking, 1931; Roethlisberger, F. J., and Dickson, W. J. *Management and the Worker*, Harvard, 1939.

have limited merit; one system operates successfully in one plant, another seems to work well in another, while in some plants none seem to produce the desired effect. This is easily explained by the fact that no incentive system will serve its intended purpose unless it is wholeheartedly accepted by workers, and no system will be accepted on its theoretical merits. An incentive system succeeds or fails mainly because of the degree of confidence of workers in the management administering the system. This principle applies not only to wage incentive systems but also to the acceptance by employees of standards of quality and quantity established by representatives of management.⁸

Reference to waste control in a chapter on "Executive Control of Personnel" may seem out of place, yet spoilage and salvage are closely related to personnel control, and as such are an executive responsibility. Waste within a company occurs because executives, supervisors, and workers fail to recognize the source of waste and in turn fail to take the steps necessary to eliminate it.

The whole question of waste control is one of serious social significance; therefore, the executive must consider the problem in its broadest sense. "Industrial waste in the broadest social and economic sense includes: (1) unemployment during depressions, (2) speculation and overproduction during boom times, (3) excessive labor turnover, (4) labor conflicts, (5) failure in transportation of supplies, fuel, or power, (6) unbalanced seasonal production, (7) lack of standardization, (8) inefficient processing of materials, (9) uneconomic use of equipment, (10) inefficient use of manpower, (11) uneconomic use of supplies, (12) misuse of power, (13) deliberate restriction of production either by management or men, and (14) ill health and accidents."⁹

Waste control policies must originate with top management and be transmitted through the supervisory staff to workers. The

⁸For a discussion of some of the more widely used incentive systems, see Yoder, Dale, *op. cit.*, pp. 73-408. For a presentation of labor's point of view see Cooke, M. L. and Murray, Philip. *Organized Labor and Production*. Harper, 1940, pp. 109-143.

⁹Spriegel, William R., and Schulz, Edward, *op. cit.*, p. 181.

general procedure suggested under the topic of "Tardiness and Absenteeism" can readily be adapted to waste control.¹⁰

EMPLOYEE DISCIPLINE

Employee discipline in America appears to have progressed through three stages. These are not clearly defined or distinct periods, but for our purposes they may be described as (1) the Mailed-Fist Era in which the underlying philosophy seems to have been "treat 'em rough and make 'em like it," (2) the Rules and Regulations Era in which the philosophy and method were distinctly legalistic, and (3) the new approach which is individualistic in philosophy and clinical in method.

It would be quite convenient for management if discipline could be reduced to a simple routine of making reports and imposing penalties. To some extent the discipline program can and should be systematized, but the executive must realize that the personal element is constantly present in discipline problems. System in managing discipline is essential, but provision must be made for individual variations. Everyone is familiar with discipline problems involving tardiness, excessive absence, dishonesty, insubordination, quarreling, fighting, drinking, immorality, neglect of duties, and disregard for safety precautions. The extent to which these become discipline problems varies from organization to organization. Therefore, it is desirable that every company study its own discipline records and determine the main sources of difficulty. Dr. John M. Brewer, of Harvard University, studied the reasons for discharge in 4,174 cases and found that 62.4 per cent of these involved personal characteristics such as insubordination, unreliability, absenteeism, and in contrast found that lack of skill or ability was the reason for discharge in only 34.2 per cent of cases. Other studies have brought to light such factors as carelessness, non-co-operation, laziness, dishonesty, outside in-

¹⁰For comprehensive treatments of the problem of waste control see Spriegel and Schulz, pp. 180-194, and Gardiner, Glenn, *Better Foremanship*, McGraw-Hill, 1936, pp. 110-143.

terests, lack of initiative, and other factors only remotely connected with skill. If these suggested causes of discipline problems can be taken as reasonably correct, then it is definitely indicated that many discipline cases must be handled on the basis of individual investigation.

The clinical method of handling discipline is constructive; whereas, other methods are inhibiting and restrictive. The approach to discipline problems should be analytical, and underlying causes should be studied to discover reasons for work failures, operating faults, and infractions of regulations. The action to be taken in the case of an individual should be decided on the basis of information revealed by such investigation. Unless this is done, the attitude toward discipline is likely to be punitive. Traditionally, punishment is administered both for the purpose of correcting individual faults and as retribution for misdemeanors. Unfortunately, faults are usually based on habits which must be corrected before the faults can be eradicated. Punishment may change the worker's attitude and still not influence his future behavior. The clinical approach seeks to bring about behavior changes, and less concern is given to the question of punishment.

Such questions as the following should be considered during the clinical study of discipline cases:

- (1) Is the infraction of major or minor consequence?
- (2) Has the worker been guilty of the same or other infractions before?
- (3) Is there a condition in the work situation which may have influenced the worker's actions?
- (4) Can some of his personal characteristics be modified, thus making it possible to prevent a recurrence of the troublesome behavior?
- (5) Does the worker need special instruction to provide needed information, or to help him overcome operating faults?
- (6) Was the infraction the result of ignorance, was it accidental, or was it due to neglect or deliberate action tending toward sabotage?
- (7) Does the employee's medical record indicate need for special treatment?

- (8) Are mental and emotional conflicts involved which might be referred to a psychiatrist?
- (9) Do the man's qualities, inherent abilities, and personal traits provide information that would justify refusing employment to similar individuals in the future?¹¹

The objective of the clinical method is that of securing proper adjustment of each individual employee. Because of differences in circumstances surrounding the incident, or incidents, which have brought the employee to the point of investigation, and because of differences in human nature itself, the investigation and analysis will differ from case to case. A routine investigation and report followed by an admonition personally administered by an official may suffice in many cases. Others will require more intensive study involving an examination of work history, personality analysis, medical examination, psychiatric investigation, and sociological study of the case. While all cases cannot be aided through clinical treatment, it is assumed that everything possible will be done to aid the man in the proper performance of his tasks and duties before resorting to discharge.

In the clinical study of cases normally reported for discipline, many interesting and pertinent facts will be revealed. Home conditions, financial worries, moral problems, other emotional conflicts, and antagonistic attitudes which have a bearing on the man's behavior will frequently come to light. After investigation it may appear that little can be done to relieve these circumstances; however, a recognition of their existence may eventually lead to the development of methods for their solution.

A few industrial firms have installed special services for the purpose of aiding the employee in making adjustments which will improve his worth to the company. The clinical approach may be productive even though no effort is made to provide special adjustment services. Certainly, discoveries of needs for medical or optical treatment suggest their own remedy. Likewise it may develop that retraining or reinstruction is needed to correct

¹¹See Appendix, pp. 525-528, for a suggested outline for investigating discipline cases.

operating habits, to reinstate skills that have been permitted to wane, or to dissipate habits of recklessness which have crept into the man's performances of duties. In many cases, sympathetic counseling of the worker or a frank discussion of his personal problems has a beneficial effect.

The clinical method does not seek to multiply the number of extenuations and exceptions in dealing with discipline, but seeks to encourage a wider understanding on the part of employees of the need for disciplinary action and the justice of punishment meted out. No attitude of management or employees toward discipline can controvert the accepted fact that punishment, when justified, must be swiftly, fully, and firmly administered if there is to result a respect for rules and regulations on the part of the employee group as a whole.

EMPLOYEE ATTITUDES AND DISCIPLINE

A broad knowledge of human nature is necessary in dealing with discipline problems. Officials charged with the responsibility of maintaining morale and administering discipline should possess such knowledge. The fact that this knowledge is not widely possessed is illustrated by the following points which are often overlooked:

- (1) Most employees have false ideas about the profits being made through their efforts and are prone to excuse their personal shortcomings for this alleged reason.
- (2) Reasoning is biased by feelings and emotions; hence things that seem logical to management may not appear so to the employee.
- (3) Employees' daily experiences cultivate greater loyalty to their fellow workers than to the company.
- (4) There is often a feeling of insecurity among employees based on false beliefs concerning the attitudes of foremen and supervisors.
- (5) Workers often feel that they deserve a better job than the one they now hold.
- (6) Employees are subjected quite frequently (almost continuously of late years) to propaganda unfavorable to their employers.

- (7) The immediate supervisor is the company to many workers, and, in many instances, he may be failing to carry out the policies of the company with respect to employee relations.
- (8) Every worker wants individual recognition—he wants to be known, praised, and given evidence of confidence in his work.
- (9) The worker must have explicit and detailed instructions. Human capacity for misunderstanding is almost limitless.
- (10) Workers like to express opinions and make suggestions, and, if given an opportunity to do so, they are likely to strive to do their jobs in a more acceptable manner.

The following methods have often been found helpful in correcting worker attitudes which create discipline problems:

- (1) False ideas about exorbitant corporate profits can be offset by providing facts in graphic form. Most firms do not object to revealing such information, but few take the trouble to provide it.
- (2) Since reasoning is often biased, repeated appeals to logic must be made. A lesson in the effect of repetition and dramatic presentation, using emotion to supplement reason, may be learned from advertising practice.
- (3) Inter-employee loyalties are not in themselves destructive. Where antagonism to company policies has been reduced to a minimum, this sense of group loyalty may be an asset.
- (4) The feeling of insecurity prevailing among many workers can be reduced by using discharge as a means of clearing out undesirables and incompetents rather than as a threat to assure compliance with regulations.
- (5) Pride in one's job should be encouraged. Some firms play up the importance of jobs in carefully written leaflets, house organ stories, and special awards for competent performance.
- (6) Propaganda of an unfavorable nature can be met better by counter-propaganda than by criticizing and cursing the source of the unfavorable propaganda. However, it must be recognized that long-term effectiveness of propaganda depends upon the extent to which it is founded on fact or defensible logic.
- (7) Since the immediate supervisor represents the company to employees, the selection and training of foremen and supervisors is extremely important. Lack of skill and judgment on the part of

EXECUTIVE ABILITY

a foreman often creates disciplinary problems. A foreman who knows human nature and likes men can secure employee cooperation and thereby reduce the necessity of having cases brought to the attention of higher ranking officials.

- (8) Foremen should know their men by name, should show an interest in some of the personal elements in the lives of individual workers, and should be ready to find many occasions for praising men under their supervision.
- (9) Instructions should be patiently and clearly stated. Some instruction should be given both verbally and in written form. Repetition is often necessary. Every supervisor must be a good teacher.
- (10) Employees should be encouraged to offer suggestions and due credit should be given for such suggestions.

AUTHORITY AND ADMINISTRATION OF DISCIPLINE

Authority for administration of discipline should be centered in a firstline official of the company. Supervisors should not be permitted to discipline employees beyond the point of cautioning and advising the men under their direction of the possible consequences of their actions. The supervisor should report infractions and behavior difficulties to the official in charge of administration of discipline. In emergencies the supervisor should have power to remove the worker temporarily from the job pending more specific orders from a higher official. The only disciplinary tool that a good supervisor really needs is the power to report the worker to a higher official for investigation and possible action. It is no longer considered good personnel practice to permit foremen and supervisors to discharge workers on their own authority. This power should be centered in a higher official.

Supervisors can create discipline problems through their own personal shortcomings and through their lack of knowledge of proper methods of dealing with men. Supervisors should always be selected to meet the objective of obtaining men naturally qualified for such work. The mere fact that an employee has been a satisfactory worker is not sufficient justification for promoting him to a supervisory position. To be a good supervisor, a man must know

how to persuade men, when to be firm, when to criticize, when to praise, and how to speak frankly without being offensive. He should be a man whose personal characteristics will not antagonize others, and he should be the type of person who can get things done without resorting to the use of the authority of his job.

Supervisors can prevent discipline problems by becoming acquainted with their men, by offering helpful suggestions, and by encouraging the men to come to them with their personal problems. In some instances they can avoid making an issue of some slight infraction by reporting it in the light of extenuating circumstances that may have been involved. The main task of the supervisor is to encourage the worker to discharge his duties conscientiously and efficiently. Some supervisors are ineffective because they are too easy with their men; others are too "hard-boiled." A firm but sympathetic insistence on efficient performance is the proper attitude for the supervisor to assume. A steady, even disposition is essential. Men who have ups and downs, or good days and bad days, are not temperamentally suited for supervisory work and will create discipline problems.

PREVENTIVE DISCIPLINE

Company officials who adopt a constructive attitude toward discipline attempt to convey to the employee the idea that application of regulations makes for fair and equal working conditions for all concerned. Those in charge of others should avoid a dictatorial and autocratic attitude toward the men under their direction. In advising or cautioning the worker, it is well to make plain that effort is being made to aid the man to keep his job instead of telling him that he can "either do the work right and behave himself or quit." Supervisors must do a certain amount of policing, but this must be done without making it appear to be spying. Good supervision tries to convey to men the impression that representatives of the company are trying to help workers to maintain a good record.

Continuous effort should be directed toward the promotion of morale among the employees in order to reduce the necessity for disciplinary action. Group acceptance of company policies should be encouraged through the distribution of printed information in employee magazines, leaflets, posters, charts, and other media. While the continual presentation of such information may have the earmarks of propaganda, it is effective if constructive facts that concern the company are presented. In this connection it should be pointed out that actual facts or information about the company are more effective than slogans and preachments. The propensity of the human mind to misunderstand is very marked. Most executives have doubtless been amazed by reports that have been circulated among their employees through grapevine channels. Continued and insistent circulation of constructive information is about the only successful way to combat such conditions.

EMPLOYEE SELF-GOVERNMENT AND DISCIPLINE

Employee self-government has been discussed to a considerable extent in books on personnel management during the past twenty years, but little progress has been made in applying this technique on an extensive scale. It is doubtful whether it will ever be widely used. In the few instances that have been reported which show some promise of success, employee groups have been small in number and have been closely associated with each other in their work. Organizations employing large numbers of workers distributed over a considerable territory have had little success with this method of discipline administration.

Methods of self-government should be studied carefully, however, by everyone concerned with the problem of discipline. Certain trends today indicate the possibility that co-operative management may be a problem with which industry will be obliged to deal at some time in the future. If that time ever arrives, education of employees will become an extremely important problem, and plans made now may later prove extremely useful.

Employee co-operation and participation in discipline control should be sought regardless of the system or plan. Every person concerned with the administration of discipline should attempt "to sell" the employees under his direction on the rules and regulations which have been set up by the company. The advantages of rules and regulations to the group as a whole should be made clear to each employee.¹²

EMPLOYEE REPRESENTATION

Employee representation was tried as early as 1849 in some German industries. Employee representation plans were extremely popular in England in 1916, and efforts were made following World War I to encourage the development of employee representation plans in the United States. Perhaps one of the earliest employee participation plans in the United States was instituted by the Filene stores in 1898. During the early 1900's the Nernst Lamp Company; the American Rolling Mill Company; Nelson Valve Company; Hart, Shaffner, and Marx; Philadelphia Rapid Transit Company; Packard Piano Company; White Motor Company; and the Colorado Fuel and Iron Company experimented with management-employee co-operative committees. Several plans were instituted in America between 1920 and 1932. In the transition period, beginning with the passage of the National Industrial Recovery Act in 1933 and culminating in the passage of the National Labor Relations Act in 1935, employee representation plans were established in considerable numbers. Many of these plans were developed along lines of company unions despite the following statement contained in the National Industrial Recovery Act: "Employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers, or their agents, in the designation of such representatives or in self-organization, or in other concerted activities for

¹²Material in this chapter relating to discipline problems has been adapted from Cleeton, Glen U. "The New Approach to Employee Discipline." *Personnel*, Vol. 16, No. 4, 1940,

the purpose of collective bargaining or other material aid and protection.

"No employee, and no one seeking employment, shall be required as a condition of employment to join any 'company union' or to refrain from joining, organizing, or assisting a labor organization of his own choosing."

The National Labor Relations Act outlawed unfair labor practices which, by definition, included employer domination or control of employee bargaining associations. Employers were, under the provisions of the Act, forced to refrain from participating in the activities of employee representation plans. Consequently, many of the plans fell into discard.

The confusion of collective bargaining by independent unions with the functions of employee representation principles has not been fully clarified in the labor philosophy of the party in power in national administration since 1932. Nor has the philosophy been clarified by the policies of labor organizations. Early in World War II the War Production Board in the interest of production called for the establishment of management-labor committees. Not clearly indicated, but implied, in this suggestion was the thought that such committees could solve problems relating to employee-management relations which might result in slow-downs and stoppages whether related to labor-management misunderstandings or related to management methods. Many executives gained the impression that the motive behind the promotion of management-labor committees was that of giving labor a greater voice in management. The wide political support given the so-called Reuther Plan tended to confirm the contention by management that such committees were in essence an attempt on the part of labor to usurp the prerogatives of management. Despite the unpleasant aspects of some of the activities relating to the labor-management committee plans for increasing war production, many companies have found it desirable to establish such committees. Thus the future outlook for labor-management co-

operation is somewhat confused because underlying philosophies are in process of development.¹⁸

GRIEVANCES

Wherever groups of people work together conflicts of interests become sources of dissatisfaction and inevitably give rise to grievances. It is difficult to define grievance in a specific manner. In a limited sense a grievance means any complaint lodged by an employee based on alleged unfair, unjust, or abusive treatment. In most companies it is assumed that an employee will make complaints to his immediate supervisor in case he has a grievance to report. This practice should be encouraged, but the worker should not be limited to his immediate supervisor as the recipient of complaints. Farsighted management provides other avenues of expression by employees. Among those commonly used are suggestion systems or access to representatives of the personnel department. Some companies provide for conferences between committees of employees and representatives of management.

Employees have recognized the need for more adequate ways of reporting grievances than those ordinarily provided. They have insisted in many instances that a procedure for handling grievances be provided for in their collective agreements with management. Usually the contract between management and workers provides that an employee may report his complaint to the shop steward. The steward usually seeks an adjustment by conferring with the foreman in charge of the department in which the worker is employed. If a solution cannot be reached, then the difficulty is referred to a grievance committee on which both employees and management are represented. If no settlement of the matter occurs here, then local officials of the union make representation to management. If negotiation fails, then the union may ask that the case be certified to the National Labor Relations

¹⁸For a good historical summary of employee representation see, Yoder, Dale, *op. cit.*, pp. 615-637. For the point of view of industry on labor-management co-operation see, "Employer-Employee Co-operation," *National Association of Manufacturers*, 1942.

Board, the Wage and Hours Administration, or the National Mediation Board, depending upon the nature of the grievance. Settlement of the differences between management and the union may be arrived at through arbitration or administrative decision.

Management often overlooks several important aspects of grievances. Foremost among these is the failure to recognize that many grievances are not openly stated, at least they are not revealed to company representatives. Some grievances get no further than grouching by employees among themselves. Frequently these smoldering feelings of dissatisfaction have a more damaging effect on morale than openly expressed complaints.

Good management practice provides adequate means for expressing grievances, and encourages expressions of opinion by employees. Such expression of opinion gives management a clue to the kind of information which the employee needs in order to better understand company policies, and frequently gives management an opportunity to settle differences before they get out of hand. Most grievances are easily settled once they are brought into the open because they frequently grow out of false information or misunderstanding. If smoldering grievances are neglected, they may become serious; handled with dispatch, they may often contribute to a clearer understanding between workers and management and thus promote good industrial relations.

In handling grievances the slogan should be: "Get the facts—get all of the facts." Allow a worker to present his side of the case, then give him the facts on the other side. If the grievance is genuine, and the worker is in the right, immediate adjustment should be made. If it must be decided against the employee, equal dispatch should be observed, but the reasons for decision against the complainant should always be clearly explained.

Prevention of grievances can never be attained, but intelligent employee relations can reduce their extent. Among good employee relations practices, keeping employees fully informed on matters of vital interest to them is of paramount importance. Definiteness

on policy affecting the employee is also alleviating. The worker must be made to feel that management is honest with him; subterfuge breeds discontent which foment complaints. But honesty alone is not enough. Management may be honest and above board in dealing with employees and still be one-sided in its point of view.

Capable management constantly asks itself, "What does the worker want?" If it is within the power of management to meet these wants, it does so. Unwise management asks itself, "What can we get away with?" Although management may find it difficult to satisfy certain wants of employees, it should not block the expression of desires. Wise management acknowledges the right to differences in view point between labor and management. Unwise management seeks to penalize those among its employees who differ with its policies. No company should harbor and encourage trouble makers, but expression of a complaint does not justify the branding of an employee as a trouble maker. Workers are frequently wrong in believing that they have grievances, but right or wrong, the effect of an unadjusted grievance is harmful. The least management can do is to provide opportunity for a hearing for any employee who wishes to voice a complaint.

Since the foreman is the person to whom grievances are initially reported, and since the foreman may himself be the cause of the grievance, the training of supervisors in the handling and prevention of grievances is extremely important. Such training should relate to the understanding of human wants, common sources of annoyance, and the symptoms of incipient frustration. The supervisor should also be taught how to go about collecting facts and analyzing complaints, how to report them, how to deal with union representatives, and how to negotiate with the aggrieved worker.¹⁴

Handling grievances with dispatch and fairness and using every possible means to prevent grievances from arising does not

¹⁴For a discussion of supervisors' relation to grievances see Spriegel, William R., and Schulz, Edward, *op. cit.*, pp. 58-66.

mean that management should be "soft" with its workers or constantly stand in fear of offending them. Meeting workers on a man-to-man basis and receiving constructive suggestions and complaints alike without favor or prejudice is the safest personnel policy. Under such a policy, cranks and trouble makers will more than likely expose themselves both to fellow workers and to management; whereas, a restrictive and repressive policy leaves such undesirable employees to operate under cover to stir up dissent and resentment in other workers.

GROUP RELATIONS

Much discussion of personnel problems of necessity relates to individual adjustments. Yet the individual worker functions as a member of a group. Furthermore, the trend in worker's relations with each other is toward a realization of common interest. In dealing with management a collective philosophy is generally accepted by workers. When differences between management and an individual worker arise, the natural sympathies of other workers are with their fellow worker. The gravest mistake management can make is to deal with a situation in such manner as to promote and crystallize group attitudes which favor the aggrieved worker. Yet this is precisely what management often does inadvertently because it fails to realize the strength of group sympathies.

Other factors which tend to serve as welding influences in producing common interest groups are religion, nationality, fraternal affiliations, family ties, and community loyalties. One of the tasks of top management is that of preventing these common interest factors from becoming operative in consolidating group attitudes. An indirect approach is required. Management can stimulate group solidarity by promoting interest in group achievement in production, prevention of accidents, reduction of spoilage, and establishment of quality standards. The latent power of the group may also be directed into constructive channels through

the use of slogans, conducting contests, promoting fads, and otherwise setting objectives upon which group attention can be centered.

Because group drives tend to go stale, new objectives, or new approaches to old objectives must be in constant process of development. Crowd or mob emotional surges mount cumulatively, reach a peak of intensity, and then subside. Waves of fervor sweep through groups by a kind of social contagion which in turn produces its own immunity. However, immobility of group enthusiasm is not characteristic. New contagions start new waves of fervor which in turn burn themselves out. Left exposed to outside forces, group enthusiasms are aroused by chance infection. This condition should not be permitted to operate. Instead, management, recognising the characteristic need of the group to have a common cause, can frequently control the group by planting at frequent intervals, the germs of objectives it desires to achieve with the hope that group contagion will become operative.

In dealing with an individual on matters which have group significance, management should remember that the individual will often sacrifice his own interest in behalf of the group. Yet that same individual acting on a feeling of oneness with the group will often exert himself beyond his normal achievement level to obtain objectives acceptable to the group. It is possible, therefore, to attain company objectives by making the group feel that the objectives are theirs. This is made less difficult if the company operates on the thesis that workers and management have purposes in common. A careful study of employees' desires will show that they are more in keeping with the objectives of management than either management or workers realize.

One of the most serious mistakes that management has made in the past is that of using industrial spies. Where the number of employees is large and not under close supervision, and where conditions exist which would permit sabotage, the use of observers may be justified. Most other uses which have been reported can

hardly be countenanced because use of industrial spies leads to employee dissatisfaction and lowering of morale, arouses suspicion and fear, and otherwise produces results exactly opposite to those desired by management. In addition to being somewhat indefensible as a practice, the use of spies often promotes trouble, because it is difficult to find persons who are capable investigators. It is much better executive practice to get information about employees through regular supervisory channels, through suggestion systems, through a well organized grievance procedure, and other natural avenues which operate within any organization in which large groups are involved. Where supplementary information is needed, it may be obtained through arrangements with organizations which specialize in making investigations and conducting surveys.

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Policies and Principles

CONSIDERABLE DIFFERENCE OF OPINION IS FOUND AMONG EXECUTIVES on questions relating to policies, and as a consequence, executive practice is somewhat confused. The term, policy, is sometimes used to refer to the broad, general guiding philosophy underlying the course of action of the company; at other times, it is used to refer to operating principles, and in other instances, policy means standard departmental practices. The term is also erroneously used to refer to rules of conduct. Generally speaking, policy should mean the broad statement of the manner in which management wishes its authority to be interpreted and applied. In a comprehensive sense, policy is the constitution under which a company operates; standard procedures based on policy are the bylaws; rules of conduct are specific applications of principles based on policy.

POLICY FORMULATION

Policy directs action but is distinct from orders and specific instructions, inasmuch as policy is forward-looking; whereas, orders and specific directions have immediate application. Since policy applies to future actions, it is directed, when properly formulated, toward long-time application. The need for policy statement grows out of the necessity for making decisions. Where policy has not been formulated, each case or circumstance requires its own special decision. In large organizations, top management delegates power of decision; therefore, to direct and control decision, management should establish policies to guide those who

must make a choice as to the proper action to be taken in a circumstance where alternative actions are possible. Decision by top management on a particular case does not constitute a statement of policy, but a statement that all similar cases henceforth will be handled in a like manner is a statement of policy.

Policy is often crudely formulated and ambiguously explained. Often it exists only in terms of accumulated decisions made by executives in high authority to whom cases are referred from time to time. In some companies there is no written evidence of policy as such. This condition may be purely accidental, or it may be deliberate. A certain type of executive gloats over the fact that he keeps those working for him guessing. While such an attitude may be effective in keeping sub-executives on the alert, and while it avoids the development of hampering systems of red tape, it often leads to confusion and conflict. The inevitable consequence of a "keep them guessing" attitude toward policy is the development of policy in a negative manner; sub-executives learn by sad experience that which they should not do if they wish to avoid criticism or worse. They learn the limits within which they themselves may become makers of policy and follow the general practice of referring issues to the boss when they foresee possibilities of criticism. In such companies top executives unintentionally invite reference of a great amount of material to themselves which could be handled by minor executives if clearcut policy were in existence.

Because of the importance of policy it appears reasonable to suppose that, in well-managed companies, policy will be clearly explained and preserved in written form. This does not rule out the fact that some policies will develop in a very natural manner in the form of tradition. In fact, it is doubtful whether all policies can ever be committed to written form. However, it is extremely important that policies of far-reaching significance be prepared in written form for the sake of uniformity of interpretation, convenience in revision, ease of checking complaints, and preservation for reference in case of varying claims as to their nature.

LONG-RANGE OBJECTIVES AND POLICY

Policies relating to long-range objectives are of extreme importance to the success and stability of the organization. In some companies the president acts as a sort of czar issuing edicts without reference to the board of directors or executive council. In such companies the board of directors becomes little more than a rubber stamp, and executive councils are usually non-existent. Extreme forms of this practice have rather generally disappeared. In most companies policy formulated by the top executive or an executive council requires approval of the board of directors and is regularly subjected to analysis by that body. In other companies the board of directors is a policy-forming body, and the chairman of the board exercises more control over policy formulation than does the president of the company. The modern tendency is toward the utilization of an executive council or executive board. The executive council sitting as a committee with the president of the company formulates policies which, if basic, are referred for approval to the board of directors. A still further extension of policy forming operates in some companies where administrative committees recommend policies to the executive council. In reverse order, policies under consideration by the executive council or board of directors are frequently referred to administrative committees for study and recommendation before being finally approved.

In general it may be said that the larger the number of persons in the organization who have an opportunity to express opinions on policies before adoption, the more likely the policies are to be free from flaws and limitations in application, and the more likely they are to receive enthusiastic support. However, it still remains true that members of top management are those who should accept responsibility for long-range policy. Hence this group is expected to possess greater vision and foresight than any other group within the organization. Lack of such vision, foresight, and clarity of understanding of factors involved, presages

difficulty. All too often, men who have been placed in top management positions formulate policies in terms of economy of operation and profits. The result has been unfortunate in that many company policies conflict with good public relations and violate the principles of good personnel relations. As a consequence the private enterprise system as a whole has been subjected to severe criticism. This condition has been so prevalent in the past that, despite the fact that current policies are more socially acceptable, the public in general, the consumer group, and the worker group often question the motives of men who hold top executive positions.

Policy should be formulated in such a way as to take into account the fact that adverse public opinion can be as detrimental to a company as bad financial planning. The social effect of the power of policy making is daily revealed by newspaper headlines, the growing strength of labor organizations, consumer antagonism, and repressive legislation. Recalcitrant business and industrial leaders continue to ignore this lesson in their policy making and appear to believe that they should either decry or ignore adverse opinion created by short-sighted policies. However, intelligent leaders in business and industry, instead of entering into conflict with the many forces which executive stupidity has brought into action, are striving to meet criticism by taking the consumer, the worker, and the legislator into consideration when formulating policy. It is believed that the socially conscious type of business executive is now in the majority, but the benefits of wise policy making are still being negated by a die-hard group who still think of business enterprise as a form of public exploitation to be practiced through the application of special privilege made possible through concession to economic power. The net result of such an attitude can only be further restriction of private business enterprise through legislation, counter-bloc organizations, and public opinion. When these forces become operative, control of policy is lost by the owners and managers of enterprise;

the only policies that can then be established are those which conform to limiting forces.

LIMITING FACTORS IN POLICY MAKING

The prime determiner of merit by which policy can be evaluated is the extent to which it contributes to the attainment of the objectives for which it was established. But management is not free to establish policies without reference to a number of limiting factors. A policy must conform to national, state, and local legislation. It must also be framed within the limits of administrative regulations of national, state, and local governmental bureaus. It should conform with accepted principles of ethics, but here the limitation may vary with different shades of interpretation. Most companies find it profitable to adhere to ethical standards of the highest order. In some fields of business this has not always been true; the worst offenders have been found in the construction industries, real estate, securities, food industries, drugs, advertising, and retailing. Proof of this is found in legislation in the form of building codes, broker licensing, blue sky laws, Securities and Exchange Act, Food and Drug Act, Fair Trade Practices Act, and weights and measures ordinances.

It is estimated that the practices of less than one-fourth of the manufacturers involved are the ones responsible for agitation which results in restrictive legislation. A satisfactory method of group control of organizations within a given field of business enterprise has not been developed. Trade associations, chambers of commerce, better business bureaus, and service clubs have done much to assist. Without them, the situation would doubtless be much worse. However, the codes and principles which these organizations adhere to may in themselves constitute limiting factors to the establishment of policy within a particular company.

Other limiting factors include traditions of the company and those of the particular field of business in which it is operating. Fluctuating markets, availability of raw materials, availability of

workers, community attitudes, recent relations with workers or customers, and financial difficulties are also among the elements which may modify policy. Changes in officers or board of directors may be the occasion for changes of policy. One of the worst situations which can arise in a company is the shifting of policies resulting from internal politics which presses first one faction and then another into power.

OBJECTIVES, PROBLEMS, AND POLICIES

Policies usually relate to (a) objectives of the organization as a whole, (b) objectives of special divisions or fields of activity within the organization, and (c) recurring problems, conditions, and circumstances.

Determination of over-all objectives should precede the promulgation of policies; otherwise, policies may be haphazardly developed and may be found to be inconsistent with each other. Without the guidance of objectives, policies may reflect little more than the personal idiosyncracies of the executive responsible for their formulation.

Objectives of a business organization may be closely circumscribed if older views of enterprise are permitted to dominate executive philosophy. Granting that the prime objective of business is that of profit making, there are other worthy and important objectives around which policy should be developed. Outstanding among these are: (a) establishing a reputation for rendering social service, (b) meeting an economic need, (c) maintaining satisfied personnel, (d) establishing a reputation for high quality of production, (e) producing at low cost, and (f) meeting competition.

The foregoing are illustrations of objectives applicable to the organization as a whole. Numerous objectives should be established to guide policymaking in special divisions or fields of activity within the organization. By way of illustration, the following might be appropriate objectives of the production department:

(a) Maintain an equitable balance between chargeable and non-chargeable production time. (b) Maintain low unit production costs. (c) Maintain an even and uninterrupted flow of work. (d) Determine the break-even point for each production center and budget each center to provide volume to exceed the break-even point. (e) Establish reasonable man and machine production standards. (f) Utilize workers who can meet established production standards. (g) Pay wages in proportion to individual productivity.

Policies established for the purpose of achieving objectives are usually anticipatory. However, circumstances and conditions are constantly arising which may not have been foreseen. If the problems involved are likely to recur from time to time, then applicable policies should be established. For example, a company starting in business with a relatively young personnel may have no occasion to deal with the problem of retirement age during the formative years of the company. However, there arrives a time when it becomes necessary to determine whether an employee having reached sixty-five shall be retired, or whether he will be retired at a later age. Since the question will arise repeatedly, the establishment of a policy applicable in such cases saves time in future considerations. The advantage of having working policies goes beyond time saving. The existence of policy, and impartial applications of it, result in smoothness of operation and tends to reduce dissatisfaction and complaints.

DURATION OF POLICIES

As has been indicated earlier, broad, general policies formulated by top management should be long-range, long-time policies. Such policies are presumably agreed upon after careful thought and deliberation. Adherence to them, even under pressure, gives stability and continuity to an organization. Since such policies are expected to stand the test of time and change, there should be no question as to the soundness of the reasoning underlying them.

If a change of policy is being considered, the same steady logic should be applied; the reasons for change should be equally as valid as those used in the establishment of a policy. While change in basic policies should be made only when the weight of logic and evidence dictates, stubborn adherence to policies which have outlived their usefulness cannot prove otherwise than fatal.

Although basic policies are long-term, long-range, it is often necessary to establish interim policies to cover shifting conditions. These may be general in nature, having wide applicability, or they may be divisional or departmental. In any case, they should agree with basic policies but should respond more sensitively to changing conditions than do basic policies. Basic policies should be such that they will resist momentary change. Even though conditions of change sometimes indicate that a long-established policy is no longer applicable, temporary suspension may be indicated rather than discontinuance. Sometimes a long-established policy can be continued by making minor amendments.

DISSEMINATION OF POLICY INFORMATION

Every employee responsible for the supervision or direction of the activities of other workers should be thoroughly familiar with those policies applicable to the work supervised and the policies relating to the workers concerned. In like manner, all members of an organization who have contact with the public should understand company policies insofar as they apply to public relations.

At some point in the organization all company policies should be on record. Opportunity for reference and for consultation for the purpose of obtaining interpretations of policies should also be afforded. This does not mean that in the application of policy to the numerous situations which arise, all will be referred for interpretation. Employees who are responsible for handling situations involving policy must be expected to be able to make interpretations necessary to apply policy in the majority of circumstances; otherwise, endless conferences become necessary.

Policies applicable to each job should be available to the holder of the job, regardless of the level. Many companies make such information available in printed form. Subsequent additions and changes are usually issued in bulletin form with a provision for filing the supplements. Passing policy information along by word of mouth is unsatisfactory. However, oral confirmation may frequently be necessary, particularly in the form of reminders to those who, in the rush of getting the job done, read bulletins and handbooks hurriedly.

To some extent policies are a matter of concern to all employees. However, it is not customary to issue comprehensive policy statements to workers below the supervisory level. Instead, booklets of rules and regulations are frequently issued to the rank and file. Contrary to general opinion, these are not policy statements in the strictest sense; they are suggestions of standard practice for interpreting policy and putting it into operation.

SUPERVISORY RESPONSIBILITY FOR POLICY

In most companies strict attention is paid to policy applications involving members of top management, and in transactions between top management, department heads, and foremen. However, to attain company objectives, policy adherence must occur throughout the organization, even at the level of the humblest worker. It is evident, therefore, that the men in the organization who have the greatest responsibility for compliance with policy are the first and second line supervisors—the men who are in immediate contact with the greatest number of workers. These supervisors must think in terms of policy in all its complexity in serving management and in terms of its simplest applications in dealing with workers.

The supervisory job with respect to policy is a difficult one. It can be made easier if careful and continuous attention is paid to instructing in policy as well as in operating practices. To pro-

vide such instruction it is essential that the supervisor familiarize himself with policy and its applications in the wide variety of circumstances with which he is confronted. The supervisor must also be in sympathy with the policies of his company and seek to cultivate sympathetic acceptance by workers under his supervision. At times he will find it desirable to interpret and explain the necessity for regulations growing out of policy. In such explanations it is usually more effective to point out ways in which the worker benefits from regulations than it is to emphasize company benefits. It goes without saying that to gain adherence to policy by workers, the supervisor should conduct himself in such a manner that his actions are always in accord with company policy.

POLICY VIOLATION

Lack of compliance with policy on the level just below that of top executives is usually quickly evident and subject to immediate correction. However, violations at other levels can sometimes continue for a considerable period of time without detection. On the supervisor and worker levels, unintentional deviations may come over a period of time and gradually bring about a change of policy to all intents and purposes. Such deviations should be guarded against and should not be permitted to reach a point at which it will become necessary to make an issue of failure to comply.

On policies relating to financial matters, compliance can be checked through auditing procedures, or such evidence may arise as a by-product of periodic audits. Complaints by workers, customers, and others in public contact with the company may supply clues which suggest direct investigation to determine the extent of violations. Some companies make periodic investigations for the sole purpose of determining policy adherence.

In dealing with deviations from policy the attitude of the executive should not be one of seeking compliance for policy's

sake. The purpose of policy is to gain a certain end result and to provide a common standard of reference which will avoid the confusion resulting from varying individual practices. The purpose of policy is not one of regimentation, but one of implementation. Disciplinary action relating to policy violation should be based on the damage done rather than on the flagrancy of the violation. If a policy can be violated to any great extent without giving rise to embarrassing losses, or causing damage which requires extra work and expense to correct, or if violation can occur without interfering with the attainment of company objectives, then it is high time to examine the policy to determine its future usefulness.

There must be a certain arbitrariness about policies. Often it is true that any one of several policies would produce equally satisfactory end results. Under such circumstances one policy must be chosen and adhered to, in order to avoid confusion. The criterion for judging a policy under such conditions is that the one chosen is at least as good as its alternatives. If a policy is better than its alternatives, then choice of policy is not difficult, but, by the very nature of things, this cannot always be true. This does not mean that a policy which cannot be supported by excellent reasons for its existence should be considered not acceptable; it means that equally valid reasons may exist for policies that might have been adopted, as well as for the one which was actually adopted.

Some policies will be popular with administrative officials below the level of top management, and some will be unpopular. Some policies will be popular with workers, and some will be unpopular. This is inevitable, and it should not be expected that all policies will be accepted without question. Unpopular policy can be made more palatable if it is defensible, but no policy which is fundamentally unsound or unfair can be made acceptable. Unpopular policies should be reviewed in the light of their defensibility before compliance is demanded.

EXECUTIVE ABILITY

PRACTICES COVERED BY POLICY

Policy must be formulated with respect to several fields of company activity. Since a body of policy evolves little by little, examination of practices covered by policy would show a considerable degree of difference from company to company. A thorough search of the literature on management and inquiries directed to several commercial organizations reveals that a comprehensive compilation of practices requiring coverage by policy has never been prepared by any person or organization. However, a suggestive check list has been prepared by the Committee on Industrial Practices of the National Association of Manufacturers. This report, entitled "Constructive Industrial Practices" (1939) includes references to practices in the following general fields: customers, suppliers, competitors, employees, stockholders, creditors, local community, and government. The following broad, general statements of policy are included in the report:

1. Fair and equitable treatment to every customer, on a basis profitable to both the seller and buyer.
2. Fair treatment to every supplier, extending the same consideration to the supplier as the purchaser wishes to receive from his own customers.
3. Co-operation with competitors, within legal limits, on a basis that will assist each unit in the industry to operate under high business standards and enable the industry as a whole to serve the public effectively and economically.
4. A sound and well-defined labor policy suitable to the problems of the particular company, community, and industry, providing free interchange of ideas between management and its employees on all matters of mutual interest, adequate opportunity for consideration and adjustment of all complaints, maintenance of good working conditions, and fair wages for work performed.
5. Recognition that the property of a corporation represents investments and risks of the stockholders, and that the business, therefore, should be conducted so as to render sound service, protect the principal, and produce a fair average profit, with consideration at

all times for the human factors involved, and for the public interest.

6. Preservation of credit standing and good-will by fair and equitable treatment of creditors.
7. Demonstration that the business is a desirable "citizen" of the local community in which it operates.
8. Co-operation with and support of all the agencies of government in the exercise of their legitimate functions.¹

A reasonably comprehensive check list of suggested practices is given under each general heading in the N.A.M. report. These subsidiary policy suggestions constitute a check list which can be used as a basis for comparison by executives wishing to review critically policies under which their companies operate. In using such a check list it is suggested that the point of view be not so much that of determining conformance to the suggested practices as that of preparing for further study to determine the adequacy of policies in effect in any given company.

¹*Constructive Industrial Practices*, National Association of Manufacturers, 1939, p. 5.

Modern Executive Technique

CALLING FOR A THOROUGH-GOING REORGANIZATION OF A GOVERNMENTAL agency for commodity price control a prominent commentator on business problems indicated the following as reasons for the apparent ineffectiveness of the agency: (1) bad personnel, (2) lack of foresight, (3) lack of understanding of simple economic processes, and (4) needless complication of orders and controls.¹

Similar criticisms can frequently be offered as the cause of failure of executive policies and practices in business enterprise. Therefore, executive technique should be directed toward (1) competent selection, training, and control of personnel, especially those members of the organization who serve in a capacity as assistants to top-ranking executives, (2) development of policies which are in accord with social and economic processes, with special reference to current conditions, (3) planning which anticipates circumstances likely to arise at some future point in time, long-range as well as short-range, and (4) development of executive techniques with the greatest possible simplicity.

SIMPLICITY OF ORDERS AND CONTROLS

Three of the four foregoing factors relating to executive technique; namely, personnel, economic and social processes, and exercise of foresight, have been discussed at length elsewhere in this volume. Policy, procedures, and controls have also been discussed to a limited extent. Some of the procedures relating to

¹Robey, Ralph, "What is Wrong with OPA," *Newsweek*, June 7, 1943, p. 74.

executive functions which have been discussed in earlier chapters may appear to be complex and, to a considerable degree, to depart from the general principles of simplicity. This probably arises from a confusion of principles with procedures. Principles, by their very nature, must, of necessity, often involve highly complex elements. Yet good executive technique requires that the procedures based on these principles be made as simple as possible. By way of example, it may be pointed out that the principles underlying testing in the selection of personnel are extremely complex when considered in relation to the underlying scientific evidence and the implications growing out of their use. However, the actual process of testing applicants for employment can be made simple in practice. It is within the province of the executive to point out the possibilities for simplification of procedure in applying even the most complex principles.

Material which is placed in the hands of employees, or agents of management, such as orders and regulations, particularly should be reduced to their simplest terms both in terminology and scope. Here again an excellent example of the violation of the principle of simplicity can be found in the practices of a government agency which, during a little more than one year of existence, issued 37,907 pages of regulations and an almost equal number of pages of explanatory, interpretative, and modifying circulars. Equally gross illustrations can rarely be found in industry, but there are many examples of failure to simplify terminology. Simplicity in itself is not an objective toward which it is desirable to strive regardless of achievement of purposes, but of two procedures under consideration, if one is relatively simple and the other more complex, the "law of parsimony" dictates that the simpler one be used if it will accomplish the same ends.

SYSTEMS AND STATISTICS

The present day executive faces a bewildering array of systems and techniques not available to executives of a quarter of a

century ago. Many of these are demonstrating their value in aiding the executive in maintaining contact with the complex ramifications of the organization which he serves and in the solution of vital problems relating to company operation. Other systems are so cumbersome and complex as to obscure the essentials and the mechanics of their operation. New systems are in constant process of development, and there is a tendency for complicated procedures to evolve as mutations of existing systems. While it is theoretically true that only those procedures which function effectively and justify themselves economically should survive, the tendency of executives to identify themselves with their jobs encourages the continued acceptance of procedures beyond their point of usefulness. It will often be found that simplification of existing systems is more to be sought than the development of extensions and amplifications. Among some executives there is a tendency to exalt system, a tendency which should be reversed, because a system should be a means to an end and should be subordinated to the ends which it serves.

Modern executive technique calls for ability to use statistics, accounting procedures, and systems of control. However, it is equally important for the executive to be able properly to evaluate each and every routine, to discriminate between methods, and to measure procedures in terms of results attained. Technique is a means to an end, and great care must be exercised to prevent the user of a procedure from becoming a slave to it. Particularly must the executive be able to delegate responsibility for carrying out the various steps involved in a system of control, even though he feels the necessity for limited supervision. Through force of habit it is easy for one to become accustomed to a procedure and accept it simply because it is in operation. The alert executive should frequently re-examine all procedures and stand ready to discard those which are not proving economical and efficient.

CONTROL TECHNIQUES

The executive must energize, direct, and control that part of the organization for which he is held responsible. The spheres of executive function have been outlined in detail elsewhere in this volume. Executive technique is directly related to the form of organization represented by the company which he serves and the particular type of management problems which are to be brought under control. An investigation conducted at Stanford University reveals that there are sixteen primary fields in which management control problems arise. These are, according to that report: (a) policies, (b) rate of operation, (c) organization, (d) quality of key personnel, (e) wages, (f) salaries, (g) costs, (h) methods and manpower, (i) capital expenditures, (j) department effort, (k) line of products, (l) research and development, (m) external relations, (n) foreign operations, (o) demands upon executive time, (p) over-all performance.²

Techniques of control used in various companies are discussed in detail in the report of the Stanford investigation.³ As defined in the report, control is a "basic process and whatever the type or whatever the subject, it embraces the following elements:

- (1) Objective—what is desired?
- (2) Procedure
 - (a) Plan—how and when is it to be done?
 - (b) Organization—who is responsible?
 - (c) Standards—what constitutes good performance?
- (3) Appraisal—how well it was done."⁴

CONTROL THROUGH COMMITTEES

Modern management uses committees extensively. Some of these are formed for a temporary period and deal with special

²Holden, Paul E., Fish, Lounsbury S., Smith, Herbert L. *Top Management Organization and Control*. Stanford University Press, 1941, p. 75.

³*Ibid.*, pp. 77-210.

⁴*Ibid.*, p. 77.

problems; others are standing committees discharging staff functions and otherwise serving in an advisory manner; whereas, others are standing committees having executive power. Two methods for fitting committees into the organization chart of a company are suggested in the Stanford study previously mentioned.

Plan A

Trustee Level—Board of Directors

Members: President, Vice Presidents, Directors.

Functions: Representing, safeguarding, and furthering stockholders' interests; determining basic policies and charting the course of the business organizations; reviewing and appraising over-all results. Monthly meetings recommended.

General Management Level—Executive Council

Members: President and Vice Presidents, functioning as assistant presidents.

Functions: Planning, directing, co-ordinating, and controlling the business as a whole. Determining objectives, establishing operating policies, and securing results. All activities carried on within the scope of basic policies and authority delegated by the Board of Directors. Weekly meetings recommended.

Departmental Management Level

Several standing subcommittees fully accountable to general management for the successful conduct of the respective departments and subsidiaries of the company.

Products Committee

Members: Director of Research and Development, chairman, General Manager of Manufacturing, General Manager of Marketing.

Functions: Approves changes in line of products; major changes require final approval of executive council.

Appropriations Committee

Members: Appropriation Analyst, chairman, Chief Engineer, Controller, Director of Organization and Cost Control, the executive in charge of department or departments concerned.

Functions: Passes upon all capital and major maintenance projects subject to approval of executive council.

Co-ordinating Committee

Members: Executives in charge of major departments, augmented on occasion by top executives of subsidiary departments.

Functions: Crystallizes best judgment of departmental management as a guide to the executive council in taking action on matters of general concern; co-ordinates departmental plans and interests.

Wage and Salary Committee

Members: Director of Organization and Cost Control, chairman, Director of Personnel, executive in charge of department concerned.

Functions: Approves all changes in wages or salary structure, subject to policy; special cases referred for approval to the executive council.

Personnel Committee

Members: Director of Personnel, chairman, Director of Organization and Cost Control, executive in charge of department concerned.

Functions: Conducts annual rating of personnel in jobs in which salary is above \$6000. Certifies to the adequacy of qualifications of candidates for appointment to all positions involving salary above \$6000.

Pension and Benefits Committee

Members: Manager of Employee Benefits, chairman, Director of Personnel, executive in charge of department concerned.

Functions: Approves all pensions and benefit cases covered by policy; makes recommendations and refers to the executive

council for final approval all cases not covered by established policy or precedent.

Plan B

Trustee Level—Board of Directors

General Management Level—Administration Committee

Members: Same as Plan A.

Functions: Same as Plan A.

Departmental Management Level

Each Vice President in full charge of his division sets up committees which he deems necessary.⁵

From the standpoint of organization the regular company committees provide general management with additional advisory, co-ordinative, and control agencies. In this regard they supplement the staff departments, management having at its disposal the use of either type of agency. There is no overlap in purpose or functions, however, between the staff departments and the committees. The staff organizations are composed of experts, specializing by function. . . . They are called upon when specialized work or expert advice is required within their respective fields.

Committees should be created only when it is desired to obtain the co-ordinated best judgment of a particular group. Committees are no substitute for high-quality executive talent; they are not effective in offsetting defects in the organization structure; neither do they adequately correct weaknesses in the plan of management. The true function of committees is to deliberate upon previously developed facts, to exchange viewpoints, and through collective judgment to recommend action or endorse conclusions. Committees are not expected to be fact-gathering agencies; neither should they be assigned work to do. It is a waste of the time of all the members to endeavor to develop facts from which to find solutions through group discussion.

. . . The purposes for which committees are most effective are:

1. To co-ordinate activities and points of view of the members. For example, it is often desirable to have some agency wherein the various departments can outline operating schedules, inform each other of intended developments or projects, and otherwise keep each

⁵*ibid.* See chart inserts following page 73.

other up to date. This gives each department represented a chance to explain its needs and co-ordinate its activities with those of the other departments.

2. To provide general management with well-considered recommendations on matters of company-wide concern as a basis for final action. Thus if general management desires the consensus of judgment of the department managers, there is an agency through which to obtain that co-ordinated opinion without soliciting each one separately.
3. To provide the rounded judgment of a well-qualified group in lieu of that of one individual, agency, or department. On such matters as salaries, appropriations, employee benefits or promotions, committees are an essential part of the control machinery in many of the companies visited. The various department managers refer their proposals to the committees established in these fields for their unprejudiced analysis and appraisal. Within specified limits, approval by the department manager and endorsement by the committee constitute final authorization. In case of disagreement, or beyond the limits specified, the proposal is referred to higher authority for final decision. This arrangement relieves the top management of routine approvals. In addition it removes the pressure and the onus which usually attach to any one individual who has final approval on matters which affect the destinies of individual employees, such as salaries, ratings, and appointment. A more sound and impartial consideration is also assured.⁶

THE CONFERENCE METHOD

Regardless of the extent to which committees are used, the conference method has become an important executive technique. It is likely to be used even more in the future. Mere size of the organization makes individualism less and less effective. This does not mean that the power of the executive will be lessened; on the contrary, it is because the group conference increases executive power that it is becoming the general practice. No executive can keep abreast of all developments and occurrences. Conferences bring out varying views as well as supplementary informa-

⁶*Ibid.*, pp. 59-61.

tion. When conferences are properly conducted, these views are brought out into the open, thus making it possible for them to be weighed against each other.

Much progress has been made in the application of the conference method but those who use it continue to learn how to improve it as it is applied. The method has been condemned by those who have failed to understand it or use it properly. Conferences should not be town meetings in which a majority of the less able members can sometimes outvote a better informed minority. Nor does the conference supplant the authority of the executive; the chief executive still has the final decision to make and the authority to execute the programs on which he decides, but through the conference method he prepares those associated with him to carry out his plans intelligently and discovers in advance the weaknesses and difficulties likely to be encountered, thereby, increasing his chances for success. The bulldozing type of executive cannot use conferences in the manner in which they serve best because he cannot keep an open mind and cannot stimulate thinking in his subordinates. Domination of a conference by the conference leader, frequently a top-ranking executive, destroys initiative and suppresses rather than encourages the presentation of ideas.

Modern science and engineering have multiplied many fold the mechanical powers at the disposal of industry in carrying out its production activities. The conference method does the same for mental powers, and it is high time that as much attention be given to the controlling of the "billions of wild horses" found in thought processes as is given to the control of material and operations. Through the conference method the executive gains more power because through it he creates an organization which is thinking and working with him instead of having a group of men who are merely working for him.

Industry is depending more and more on specialists—engineers, chemists, accountants, and statisticians—and this tendency

will continue, because the fields of man's technical knowledge are becoming more complex daily. Management is confronted with the problem of co-ordinating diverse forces so as to build them and guide them in the direction in which progress is desired. Merely putting bricks in a pile does not make a factory building, nor does a miscellaneous collection of cog wheels make a machine. However, bricks properly fitted together do make a factory building, and an assemblage of cog wheels makes a productive unit. The technical specialist can plan the building of a factory and the building of a machine, but the purpose of each must be determined by someone with a broad over-view of the objectives to be attained. In the same manner that the technical specialist plans and supervises the erection of the building and the productive units to be housed in it, so must management assume the responsibility of fitting together the activities of many specialists so that they will function as a unit to promote the aims and purposes of the business organization. Usually this can be done most satisfactorily through conferences. As each member of a business organization becomes aware of the importance of his special contribution to the organization as a whole, his work is more highly motivated. New phases of the particular problems of the specialists are brought to light as a consequence of the stimulating influence of other minds.

Co-operation between men with related problems, which becomes possible through conferences, tends to diminish waste of effort resulting from individual divergences and overlapping of activities. This is an extremely important contribution of the conference method, but, in addition, conferences bring to the executive the facts necessary in formulating policies and tends to unite the group into one organic whole striving for a common purpose. As each member shares in discussions leading to resultant conclusions, to that extent he feels that the program of action decided upon and the policies adopted are his, and being such, loyalty and enthusiasm are generated,

CO-ORDINATING SPHERES OF EXECUTIVE CONTROL

In some companies it is reported that the conference method has been distinctly successful, yet instances of complete failure are likewise to be found. From the evidence at hand, it seems that failures can, for the most part, be traced to preventable sources. In many instances where the conference method is alleged to have been used, it has been found that it was not used, that it was not properly used, or that there was no sincere effort to apply the conclusions reached in conferences.

For example, many companies have conducted foreman training conferences by the directed discussion method and in the conferences, as such, have attained success, but in applying the conclusions reached in conferences equal success has not been achieved. Many foremen who have participated in conferences complain that changes agreed upon in the conferences as being desirable are not made because top-ranking executives continue to exercise arbitrary control. Best results are attained when the conference method is applied both horizontally and vertically within the organization. Meetings of boards of directors are conferences as are meetings of departmental groups below the level of vice president. The chief executive of a company usually attends and participates in the directors' meetings, but he may be totally unaware of transactions which occur in departmental meetings unless he transmits to lower level conferences the ideas that are developed in meetings of the board of directors. There is no vertical integration. Likewise if the transactions of departmental conferences are not brought to the attention of the board of directors, through the president or vice president, there exists only horizontal flow of ideas. Not all transactions of operating officials should be brought to the attention of the directors, but conferences of operating officials will often produce new ideas and points of view which should be transmitted to the directors through the president. He and his vice presidents are liaison officers between operating groups and directing groups, and it is their job to keep

these two groups from attempting to make progress by working at cross purposes. It is the function of top-management executives to integrate the numerous parts of the whole machine which is represented by the line and staff organization chart.

Officials regularly participate in conferences attended by immediate subordinates. This is the most frequent pattern which company conferences follow. However, company officials should occasionally participate in conferences participated in by subordinates below the immediate line level. Participation in such conferences will be less frequent, but highly desirable to provide opportunity for interchange of ideas at all levels in the line organization. On occasion top-ranking officers should take part in conferences in which employees having no administrative or executive responsibilities are represented. Some companies have found it desirable for officers to participate regularly in two conference groups, one with those of equal rank and above, and one with persons of lower rank in the line organization. The number of conferences regularly participated in should be limited to two or three, otherwise too much of an individual's time is devoted to conference activities. This, of course, need not hold true if an individual is a particularly able conference leader and has been chosen to conduct conferences for that reason. The number of occasional conferences will vary with the need for such meetings.

FORMAL VERSUS INFORMAL CONFERENCES

In any meeting participated in by a group which exercises legislative power, it may be desirable to follow parliamentary procedure. When the board of directors or executive council is in executive session and is considering a matter which has already been rather thoroughly examined in informal conference meetings, then parliamentary procedure may be desirable. However, the majority of conferences should be informal, but of course should be directed and controlled toward the attainment of the

purpose for which the conference is being held. If strict adherence to parliamentary procedure is insisted upon, the development of ideas through spontaneous discussion will be curtailed. A conference leader must know how to direct discussion in such a manner as to get results without resorting to cumbersome parliamentary formality.

The suspension of parliamentary formality in conferences may make it necessary for conference groups to be taught how to participate. Unless intelligent participation is encouraged, some members will not talk at all, while others will monopolize conference time to the point of speech making. "Left to their own devices many members of a conference group will talk too much and think too little, other members will not talk at all. Still others will indulge in private conversation. And so it goes. All these things, and many others that may occur in conferences, react against the success of a meeting."⁷

As a substitute for standard rules of order some conference leaders have found it helpful to issue brief suggestions on the conduct of particular conferences. The following is a sample set of suggestions:

1. The leader has no ideas to present to the group. All discussion will represent the consensus of the group.
2. Everyone is expected to participate in the discussion freely and voluntarily, but no one will be called on for an opinion.
3. Talk one at a time. Please refrain from private conversation, out of courtesy to the man who has the floor.
4. Express your opinions briefly.
5. We expect a difference of opinion, but no one should get angry if others differ with his opinions.⁸

THE CONFERENCE LEADER

Much of the success of conferences depends upon the personal characteristics, competency, sincerity, and diplomacy of the leader.

⁷Cooper, Alfred M, *How to Conduct Conferences*. McGraw-Hill, 1942, p. 169.

⁸*Ibid*, p. 170.

Even little mannerisms indulged in by the conference leader can mar the success of the conference.⁹

Study of books on methods of conducting conferences will help the conference leader to understand conference procedures. However, facility in directing conferences can only be gained through experience. The leader should critically examine himself during the early stages of conference experience by asking such questions as: (1) Do you plan your conferences carefully? (2) Do you talk too much when leading the conference? (3) Are practically all your conferences with subordinates developmental in nature? (4) Do you over-ride the consensus of your subordinates? (5) Do your subordinates enjoy attending conferences led by you? (6) Can you lead inspirational conferences? The above questions are suggested by Cooper as the basis for evaluation. He further suggests that the conference as a whole be evaluated by determining success on the basis of the following points: "(1) the attitude of the group toward the leader, (2) the technique of the leader in conducting the conference, (3) the interest displayed by the group in discussion, (4) the degree to which the group participates intelligently in discussion."¹⁰

PLANNING OF CONFERENCES

Occasional unplanned conferences may be held with a reasonable degree of success. However, most unplanned conferences are not conducive to satisfactory results and are wasteful in time. The conference leader should prepare the plan for a conference. Such plans may range all the way from a few well chosen thoughts in the form of notes to a carefully detailed schedule listing aims and purposes, methods of motivation, materials to be used by the conference leader and those to be supplied to the participants, summary of introductory statements, list of discussion questions to be used in case they do not arise in the natural course

⁹*Ibid*, pp. 18, 19, list 33, "Unpleasant Mannerisms Which Have Been Reported as Sources of Annoyance to Conference Participants."

¹⁰*Ibid*, p. 98.

of events, suggestions for applying conclusions developed in the conference, proposals for assigning tasks and responsibilities which may be necessary to follow through the purpose of the conference, and announcement of future plans and intentions with respect to other conferences on the same subject or new conferences on other topics.

While it is normally the responsibility of the regular conference leader to develop plans for conferences, the effectiveness of conferences will be increased if leadership responsibilities are rotated among the participants. Where rotation is not feasible, occasional assignment of leadership responsibilities to conference members will usually be found desirable. The rotation or occasional assignment of conference leadership responsibilities accompanied by the necessity for planning makes for better conference participation. A member who has planned a conference and faced his fellow members has a better understanding and appreciation of the difficulties encountered by the regular conference leader.¹¹

The importance of planning with reference to conferences has been interestingly presented by the humorist, Don Herold. Don says:

The first rule is write it down.

There should be a lot more writing and a lot less talking in connection with every conference.

"Let's get the boys together and talk things over" is a poor start for any conference. Specifically, what boys? Specifically, what things? Specifically, from what angles? And who will say what on what subject?

The first requisite for any good conference is that it does not amount merely to a lot of guys chipping in their unpremeditated nickels worth on unexpected subjects.

The man who calls the conference should write down its purpose. In this act, he may discover that the conference has no purpose and that he does not have to call it. And that will be just so much velvet for everyone concerned—or unconcerned. . . .

¹¹For suggestions on conference planning see *Ibid.*, pp. 40-56.

One thought right here: Conferences are expensive. If you stop to compute the salaries of the men taking part in the conference for the time they're sitting there, it adds up to a pretty penny of the company's money, so conferences shouldn't be monkey business.¹²

Conferences should be motivated and directed. Motivation is reasonably well taken care of if the purpose of the conference is a matter of interest to those participating. If it is a matter of serious concern, so much the better. Where the purpose is none too challenging, the leader can motivate activities by using appeals to basic human desires. The clever leader can develop intensity of interest even though the subject is a dull one.

Conference discussions like private conversations have a way of getting out of hand and running off the track. Considerable stimulation may be required to keep the conference moving in the direction for which it was called. Injection of pertinent questions by the conference leader helps considerably.

Our friend, Don Herold, also has some ideas about keeping the conference on the beam. He contends,

The shorter the conference, the better.

If a conference is compact and snappy, it means the staff will have more respect for the next one.

It means less waste of costly man hours.

And it will probably mean more efficient results from the conference itself. Here, too, writing can help thinking.

The objectives of the conference should be written down—even the progress of the conference, if any, should be written down. The obvious act of putting down things will, of itself, help. . . . It will help exclude hot air on subjects extraneous to the conference (Some fellows regard any crowd of three or four as a Chautauqua which they should address on their pet subjects from cross-bred geraniums to how to get out of a sand trap without a suction pump.)

If you must have a conference, keep it on the beam. Make it behave. Don't let it cruise around in space.¹³

¹²Herold, Don. *How to Harness a Conference*. Hammermill Paper Company, 1942, pp. 3-4.

¹³*Ibid*, pp. 10-11.

GIVE THE CONFERENCE METHOD A FAIR TRIAL

Enthusiasts for new and promising methods frequently do the cause they champion far more harm than good by inducing too rapid application of the method. The conference idea has suffered thus at the hands of its friends. It is not a magic formula that can be applied and then forgotten. Since the conference method requires intelligent co-operation of the participants and leaders for success, slow progress may be made at first and many difficulties may arise. Companies which have successfully used the conference method have learned from experience the things that can be done and the things that should not be done. The written record of experience of many widely different groups may serve as a basis for beginning the use of the conference method, but conditions vary from company to company, and the experience in one company will not necessarily be the experience in another. The chances for success are greater if conferences are used sparingly and tentatively at the top of the organization and by degrees introduced throughout the rest of the organization. Any method is seriously handicapped if it is introduced with a fanfare of trumpets and is presented as a cure-all for the numerous problems with which industry is confronted. Like all other desirable techniques the conference method costs much in patience, earnest effort, and sacrifice of prejudice. But in the many instances where it has been successful, those using it feel that they have been well repaid.

SUGGESTION SYSTEMS

Probably the greatest waste in modern industrial organization is the neglect of human intelligence. Management has learned to utilize labor and materials fairly well, and while many further gains will be made through the application of management's ingenuity, it is a mistake to assume that management has a monopoly on brains. In utilizing the mental powers of employees almost nothing is being done by the great majority of employers. In most

organizations a small number of persons representing management and technical specialists are expected to do the thinking for the entire organization; the ordinary employee seems to be looked upon as a brainless automaton who should feel happy that he is given the privilege of working. From the standpoint of good industrial relations such a point of view is untenable, because it does not contribute constructively and often contributes negatively to morale.

The latent power of constructive ideas which remains untapped in those concerns which do not use suggestion systems offers an immense potential field for exploitation by industry. By exploitation we do not mean that the employer should seek to take unfair advantage of the employee, rather we mean that the employer should locate and make use of talents now wasted for the mutual benefit of the individual and the group. Like the conference method, a suggestion system is not the remedy for all industrial ills; but it is an executive tool which, if properly used, will enable management to perform a profitable service by utilizing the thought power of its employees. Many companies, notably such organizations as the National Cash Register Company, have been using suggestion systems for nearly fifty years and have found them to be a useful technique for stimulating and directing employees' thinking and a means of providing for flow of valuable ideas from men to management.

MANAGING A SUGGESTION SYSTEM

A few fundamental principles have been discovered through experience with suggestion systems which are vital. Above all others stands the general principle that a suggestion system operates successfully only in the presence of mutual confidence. Unless employees have confidence that they will receive fair treatment at the hands of management, suggestions will not be forthcoming. On the other hand, suggestion systems when operated with complete fairness have been used to create confidence and

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improve morale. Suggestion systems can establish better understanding between men and management. However, this cannot be accomplished except in those companies whose management takes pains to demonstrate its good faith. Where confidence is lacking, initial response to the installation of a suggestion system will be slow, and special efforts will be required to overcome resistance.

The elements of a good suggestion system are few. Any device that permits ideas to be transmitted from the worker to those on the executive level and which results in prompt and satisfying recognition of the value of the worker's contribution is a suggestion system. Details of a suggestion system will differ from company to company, and their relative importance will depend on the economy of handling the routine elements involved. A suggestion system is not a box or poster, although these are useful means of augmenting its usefulness. Because there is considerable misunderstanding among members of management concerning the details involved in operating a suggestion system, a review of some of the practices which have operated satisfactorily may prove profitable.

Assuming that management has discussed through conferences the possibility of using a suggestion system, and a decision to introduce this method of stimulating the thinking power of employees has been agreed upon, the decision must be announced to employees in a way that will elicit co-operation. Pay envelope inserts have proved satisfactory particularly when supplemented by posters giving details of the plan. Since no system will operate successfully without motivation, the announcement of a decision to introduce a suggestion system should be accompanied by details outlining the cash incentive that has been agreed upon. An announcement that the company will pay to those making acceptable suggestions a portion of the first year's net saving or profit derived from the application of ideas submitted usually provides adequate motivation. Most companies have found that payment

at the rate of 10 per cent of savings for one year is a fair basis to both the men and the company. It is fair because the company cannot lose money by purchasing dollars at 10 per cent, and the men could not otherwise expect to get any return for their ideas unless the company backed the ideas through its investment and power of its organization. Some workers will not be satisfied with this arrangement, but experience shows that a 10 per cent allowance is generally acceptable to all parties concerned. Since there are a few who believe that the company gains most through such an arrangement, it is wise to explain the elements of risk that are borne by the company, and at the time an idea is accepted to take considerable pains to explain to the person making the suggestion the many elements that enter into the application of the suggestion.

Flow of ideas can be facilitated by providing numbered blanks with a detachable stub on which to return suggestions. The numbered blank with stub bearing the same number makes it unnecessary for the author to sign his name. This may be especially desirable when a suggestion system is first introduced because a secret suggestion plan will be more frequently used than one involving signed statements. After confidence has been established, the secret suggestion plan has little advantage over the signed suggestion plan.

Except where provision is made for suggestions to be placed directly in the hands of the president or other high company official, a locked box should be provided in which the employee may deposit suggestions. If confidence is to be established, it is necessary for the employee to feel that his suggestions reach representatives of management without going through the hands of a foreman. If a locked suggestion box is used, collection should be made by a high company official or his personal representative.

ACTING ON SUGGESTIONS

It is usually desirable to have suggestions considered by a committee. The committee decides, with the advice of technical

specialists, whether or not the suggestion is a practical one and the extent to which it can be placed in operation. As soon as action has been taken the number appearing on the suggestion card is posted, and the employee making the suggestion is invited to appear for an interview. The interview should be conducted by a top-ranking official of the company. Plans for putting the suggestion into operation should be revealed to the employee during the interview.

If a suggestion has no tangible dollars and cents value but is one which can be utilized, then an arbitrary award should be made depending upon its importance. Such awards may range from a few dollars to a considerable sum in exceptional cases. If the suggestion is one which will save or make money for the company, and if the amount involved can be calculated in advance, then the employee making the suggestion should, if feasible, be given a check for his portion of the savings or profits involved at the time he is informed that his suggestion will be used. If payment is not feasible, then a token payment on account should be made at the time of the interview. Doubtless it will be found that there are many ideas that must be given a trial before an estimate of their value can be made. This is especially true of suggestions for the development of new products. In all such cases, the manner in which the record of savings and profits will be kept should be indicated to the employee making the suggestion. At the same time, he should be fully informed of the risk involved and made to understand that returns may or may not accrue. This is a delicate situation which makes it necessary to develop full confidence on the part of the employee that he will be fairly treated.

The handling of suggestions that are considered impractical is equally as important as the handling of suggestions that are considered practical. In fact, the handling of such suggestions may require more tact and diplomacy than is required with acceptable suggestions. Many concerns have created antagonism by

ignoring this point. The ideas contained in a suggestion may not be good, but anyone making a suggestion thinks it has value and frequently considers it to be extremely important. Unless those who make impractical suggestions are asked to report for interview, they are likely to become disgruntled, and most certainly will feel reluctant to make suggestions in the future. It is estimated that thousands of dollars which might be involved in potential ideas have been lost because persons making suggestions have become disgruntled. Sometimes a man not skilled in writing has a valuable idea but presents it so poorly that it is not understood and, as a consequence, is rejected. During the interview this fact might be disclosed. In such cases the suggestion should be more fully developed for the man who has made it, and the amplified suggestion sent back to committee for further consideration. Some suggestions contain the germ of an idea that has not been fully developed by the man making the suggestion. In those cases, the employee should be encouraged to develop the idea more fully and requested to resubmit it at a later time.

Some companies have made the mistake of sending employees whose suggestions were rejected to the personnel director and those whose suggestions were accepted to the president or treasurer. Employees soon discover the meaning of such a procedure, and, if they are referred to the personnel director, frequently feel that it is useless to report for interview. Experience indicates that differentiation in treatment between those whose suggestions are practical and those whose suggestions are unacceptable should not be made.

STIMULATING SUGGESTIONS

It has been the experience of many companies that a relatively small per cent of employees are the source of all suggestions received. Even in companies where the average is one suggestion per employee per year, there is a tendency toward concentration. This tendency may be explained in part by the fact that ability to

make constructive suggestions is not widely distributed. However, as a morale builder suggestion systems are more effective if participation is widely distributed. The number and distribution of suggestions can be extended through the use of various devices for reminding employees of the company's desire that they participate. Pay envelope slips, posters, and a series of placards attached to the suggestion box have been used effectively by some organizations. However, over a long period of time, the most stimulating force in producing suggestions is word-of-mouth advertising by employees. Persons who make acceptable suggestions and who receive fair treatment are prone to discuss their participation with other employees. This in turn encourages others to participate. Conversely, expression of dissatisfaction on the part of employees who have offered suggestions tends to discourage others.

Assuming that other conditions are favorable, a liberal distribution of boxes appears to stimulate suggestions. A receptacle attached to the box containing blanks for reporting suggestions has a favorable effect. Location of boxes is worthy of considerable study. Location of boxes at or near time clocks has proven unsatisfactory, whereas location of boxes at eye level near a drinking fountain has proven to be effective. In general, the problem of stimulating suggestions is a problem in advertising, and the advertising department can usually offer ideas for promotion. The basic principles of legibility, repetition, color, and interest arousal should be applied in the preparation of placards and posters used to encourage the use of suggestion boxes. Sometimes the statement of a field in which the company would like to receive suggestions is highly motivating.

Through publicity which includes instruction in the proper use of the suggestion system, the per cent of usable suggestions may be increased. However, under the most favorable circumstances many of the suggestions received will not be usable. A general average of 30 to 40 per cent of usable suggestions is found among companies that have experimented with suggestion

systems. Companies which have made special effort to promote effectiveness report that of the suggestions received 85 to 90 per cent are usable. This probably represents an ideal situation.

CONSERVING EXECUTIVE TIME

By way of illustration, attention has been called in this chapter to two important problems which should receive executive attention; namely, the use of the conference method and the use of suggestion systems. A considerable amount of executive attention may be required in the early stages of the development of these executive techniques, just as will executive time and attention be required in the inauguration of other executive techniques. However, once a technique for executive control is operating successfully, a considerable amount of the responsibility for its successful operation can be delegated, and executive attention may be limited to intermittent supervisory observations. One of the most important characteristics of successful executives is the ability to keep in close contact with company operations without becoming burdened with detail and without sacrificing valuable time. The following suggestions have been offered as a result of the Stanford management study as a means of lightening the burden upon major executives.

1. The use of high-caliber personal assistants to the major executives who handle much of the detail that would otherwise burden their principal's attention. These assistants, who are usually not in direct line of authority, digest proposals to facilitate final consideration and action, interview callers, co-ordinate matters between sub-departments, and otherwise conserve the time of their principals. In one large company each of the five general executives has such an assistant, whose caliber might be indicated from the fact that the positions are rated on a parity with such jobs as works manager, traffic manager, credit manager, and chief engineer. Such an arrangement does not interfere with the direct contact between major executives and their line subordinates when matters of justifying importance are involved.

2. The effective use of a capable staff organization to analyze, digest, and make recommendations to facilitate executive action on proposals submitted.
3. Limitation of the number of subordinates reporting directly to any one executive.
4. Physical separation of the offices of major executives and their subordinates, usually on different floors. At the same time, it is generally insisted that, as far as possible, the latter confine their contacts to a minimum number (say not over one a day) and then take up only worthy matters in well-crystallized form, instead of running into the chief's office with every problem or thought as it occurs.
5. Insistence that all but emergency matters be submitted to principals in written form; "the urgency of many situations and the importance of many ideas fade in the process of putting them down in black and white."
6. The endeavor of one company to govern the allotment of executive responsibility so that each executive will have at least one-third of his time available for personal supervision in the field, another third for constructive thinking, planning, and betterment, and not over one-third required for administrative routine.
7. Reduction of the time and attention of field managers consumed by the deluge of literature, correspondence, requests for information, surveys, and similar demands emanating from home-office departments. Some companies clear all such material and requests through a central agency whose function is to question its value and necessity, suggest easier ways to develop needed information, and finally pass upon each case, bringing any controversial items to higher authority for decision.¹⁴

EXECUTIVE DIVERSITY AND ITS COMMON FACTORS

No student of the executive problem can fail to be impressed by the great differences that are apparent among successful executives and in the nature of the demands made upon different executives by the variety of positions held. These differences have led some investigators to arrive at the conclusion that the executive pattern is a highly individual one. However, common factors are

¹⁴Holden, Paul E., Fish, Lounsbury S., and Smith, Hubert L., *op. cit.*, pp. 200-201.

to be found in all types of executives, and fundamental traits are present, around which are built varying personalities, to meet varying situations.

Our definition of an executive as a person who is responsible for the efforts of others, who makes decisions on questions both as to policy and practice, and who exercises authority in seeing that decisions are carried out applies equally well to the sales manager, the chief financial officer, the works manager, or to the head of a small company who controls all of these diverse activities. It must be admitted that most men who are successful sales managers would probably fail as comptrollers. The former position calls for optimism, enthusiasm, and drive, while the latter calls for caution, skepticism, and a painstaking consideration of details. Seldom are these opposing characteristics found in one individual. Yet both men are executives and, as such, are empowered to make decisions, must delegate and supervise work done through subordinates, and are required to assume responsibility for getting their respective jobs done effectively. Different as two men may be in background and temperament who hold positions respectively as sales manager and comptroller, they have certain qualities in common which enable them to make shrewd decisions, direct the activities of others under them, and to carry the responsibility for a wide range of activities.

The differences in executives go beyond the position held. Personal modes of action are often distinctly unlike, and when the day to day performances of two men are considered, individual mannerisms may give the impression of greater distinction than actually exists. These surface indications are not the true measure of ability. They are in a sense, "individual style."

THE PERSONAL TOUCH

Each executive must determine for himself through practice the most effective means for maintaining over-all control of the activities for which he is responsible. Regardless of techniques

used, "there is no substitute for firsthand observation of conditions and for personal contact with people on the job. Relieved of unnecessary administrative detail . . . , top executives should have more time for such contacts, which afford opportunity to refresh their knowledge and viewpoint, to observe the needs and adequacy of management, and to stimulate the morale and effectiveness of the organization."¹⁵ The executive who devises ways and means for allocating detail work and retains sufficient control of his own time to maintain personal contacts has developed the most effective of executive techniques.

¹⁵Holden, Paul E., Fish, Lounsbury S., and Smith, Hubert L., *op. cit.*, p. 12.

The Executive in a Democracy

THE WORK WHICH AN EXECUTIVE DOES AND THE MEANS HE UTILIZES to do it are inevitably related to the situation or conditions under which he works. Just as the physicist studies his problems in their frame of reference, so, too, must we study the tasks of the executive with specific reference to the type of society in which he functions. The social order places limitations on executive effort and sets the scene for all executive activities. This point has been treated in considerable detail in the chapter on executive functions. The point is again raised in this chapter in order that the relation of the executive as a leader in a democracy may be discussed. Here we shall be concerned primarily with the fact that the executive as a leader in a democracy has a special responsibility for contributing to the improvement of the social and political organization within which he works.

THE MEANING OF DEMOCRACY

Democracy as a word connoting an idea is frequently all too loosely used; it may mean widely different things to different people. Strictly speaking, democracy is a political term and can be defined as "government by the people." Direct government by the people is possible only in social groups of the simplest types, therefore the following derivative definition usually applies: "government in which the supreme power is retained by the people and exercised directly (absolute or pure democracy) or indirectly (representative democracy) through a system of repre-

sentation." The United States is a representative democracy.¹ The continued existence of representative democracy requires that the people remain sovereign, free, and able to think and speak for themselves. Such a condition is impossible in a society dominated by special interest groups, whether they be dictatorship cliques, capital monopolies, entrenched labor organizations, or umbellated bureaucracies created by administrative law or executive fiat.

The most convincing argument for political democracy arises from the fact that democracy tends to provide for the welfare of all the people. This may be an ideal which, in practice, is seldom attained; however, it still remains true that democracy has been more effective than any other type of social organization in restricting the power of a few to exploit the group. Democracy has not always prevented temporary exploitation, but it has provided antidotes for exploitation more quickly than any other form of social organization. Political democracy provides the legal framework for a social democracy in which the rights and welfare of all are recognized. However, neither political nor social democracy can exist where economic power is highly concentrated through private control of natural resources, productive machinery, finished goods, labor, or where governmental agencies regulate the distribution and use of resources, machinery, consumer goods, and labor. Any man, or group of men, who control the economic necessities of life can influence our thoughts and action and can corrupt our ideals. When that occurs we are not free; under such conditions the ritual of democracy, although assiduously followed, becomes a mockery.

In its ultimate form democracy is essentially a philosophy of life. It is a way of life based on New Testament principles which found political expression in the Bill of Rights. The political phase of democracy cannot exist apart from those things that are closely related to the daily life of people in a democracy. It is only in a social order composed of economic and social institutions

¹See Bryce, James. *The American Commonwealth*. Anniversary edition, 1939, Macmillan.

compatible with it that political democracy becomes anything more than a set of abstract principles.

In the history of man's efforts to establish social order, two diametrically opposite philosophies of life have competed with each other. Often these philosophies have been supported by opposing groups within the same social organization. One of these philosophies maintains that the individual is supreme, and the view is sometimes expressed that there should be no state or legal regulation to restrict individual expression and activity. This philosophy carried to its logical conclusions and socially applied would be anarchy. It is found nowhere in pure form among human beings, and in nature its only approximation is found in the jungle among animals where might is right and the only law is that of tooth and claw. Even the most rugged individualists do not subscribe to unrestricted personal freedom, but seek protection of their lives and property through regulatory measures. The imposition of regulatory measures through group discussion and by mutual consent marks the beginning of democratic action.

The opposing philosophy holds that the state is supreme and that the individual exists only for the purpose of contributing to the welfare of the state. This philosophy has found varying degrees of expression in many forms of government and is the foundation of totalitarian states. It is the basis of all forms of state socialism and its by-product is dictatorship, whether the dictatorship is exercised by an individual or a group. Carried to its logical conclusion the philosophy of the state supreme is pure communism. Pure communism has never existed in social organizations among human beings any more than has anarchy. In nature, pure communism is closely approached in the ant-hill and the bee-hive where individuals in the group exist only as members of the community. Nothing resembling individual human personality would be possible under extreme forms of state socialism. Unfortunately, those who pretend to believe in state socialism do not foresee its

inevitable results any more clearly than those who pretend to believe in extreme forms of *laissez faire*.

Since the days of the early Greeks and Romans, mankind has wavered between the two extreme philosophies of individual and state; first one has been accepted then the other, but long-time progress has come when social practices most nearly approached the mid-point between the two extremes. Progress in social organization seems to occur when we apply Aristotle's principle of the golden mean. In a democracy, society is made up of individuals, and the social order can only be improved and strengthened to the extent that its individual members are developed, and only in a better social order can better and stronger individuals be developed. Democracy appears to provide for an upward spiral of human progress, whereas either of the two extremes serve only to interrupt and delay such progress.

Democracy is a tough philosophy, and it would seem that its vitality lies in its inherent opposition to concentration of power. It has endured under adverse political regimes, both those which sought to undermine democracy through usurpation and those which permitted democracy to wane through inanition. It has survived both strong opposition and weak support, only to come forth anew more widespread in acceptance and further developed in application. At times democracy has been over-shadowed by the power of kings and emperors, by economic despots and dictators who have had their day and been deposed, but with the ending of each adverse experience we find the mass of people more literate and articulate and hence more effective in their ability to control the conditions under which they live. The hope for the future of democracy lies in its ability to recognize and correct its weaknesses. That it has weaknesses and faults is obvious, but, the assumption of those who oppose democracy, that its faults and weaknesses will prove fatal, finds little support in history.

The democratic way of life has been threatened by temporary power in the hands of autocrats, theocrats, aristocrats, bureaucrats,

collectivists, fascists, nazis, political bosses, pork barrelers, labor messiahs, and even by its own most rabid supporters when given the privilege of exercising power. But all of these have mistaken the concentration of power, momentarily attained, as privilege to exercise it without reference to source. Eventually the people, from whom such power is temporarily borrowed, rebel and the democratic way of life starts a new cycle of growth. This resilience has been overlooked for brief periods of time by such astute interpreters of the democratic way of life as Thomas Jefferson, Abraham Lincoln, Theodore Roosevelt, Woodrow Wilson, and Franklin D. Roosevelt. But democracy has survived maltreatment by its enemies and neglect by its friends.

Human nature being what it is, democratic society probably will always be obliged to contend with individuals who seek to dominate others for their own profit and aggrandizement regardless of the cost to other members of the democracy. Such persons appear to believe that freedom means freedom to acquire power. This distortion of the concept of freedom can be found among those chosen as political, labor, and industrial leaders in the present as it always has been in the past, and to some extent such views probably always will be held by some members of the social group. Each century, however, more people see, and see more clearly, that there can be no freedom except freedom under self-imposed legal regulations.

Law in a democracy means law adopted by the people to regulate the social order for the greatest good of the greatest number with the least injustice and with the state acting as the agent of the people to enforce such self-imposed regulations. There are, and always will be, differences of opinion as to what constitutes the greatest good for the greatest number, but we are rapidly learning that it does not mean equality of income nor "from each according to his ability and to each according to his need." There never has been a social order in which there was not wide differences of income because of the great differences in talents and

efforts of individuals, but we have lately learned that it is socially disadvantageous to permit one man or a group of men to achieve such great gains in wealth and power that they significantly limit the opportunities of others.

MANAGEMENT IN A DEMOCRACY

The problems of business management in a society based on the democratic philosophy of human rights are vastly different from the problems of management under systems of political or economic totalitarianism. In a society which assumes both political and economic democracy, those who manage, the executives, do so by virtue of the fact that they represent social groups made up of individuals possessing certain rights and privileges. Those who manage under any of the numerous varieties of state socialism represent an abstraction called "the state," and even though the state may be ideally conceived, eventually the representatives of the state become the state. Since managers under state socialism are responsible only to an abstract concept represented by the state, there exists no means of restraining the thirst for power, and eventually a form of dictatorship emerges in which a central personality gathers about him a group of satellites who determine the way of life for all those who, as members of the state, live for its existence. This has been the history of management under totalitarian Italian, German, and Russian states. Certain tendencies in the same direction have been observed in government under administrative law in the United States in the days of N.R.A. and recently under war emergency measures. A parallel to such development can also be found in unrestrained capitalism characteristic of earlier periods in America.

There is growing realization that political democracy is ineffective in a society that does not provide for economic democracy. Yet no form of democracy can function until the citizens of the democracy are capable of exercising reasonably competent judgment. It follows, therefore, that economic democracy will come

only after members of a society have reached the point, through experience, of being able to exercise intelligent economic judgment. The development of economic knowledge on the part of the masses in America has been neglected because we have, in the past, tried to operate on the one hand as a political democracy, and on the other under a modified form of economic totalitarianism. Those who benefited most through economic totalitarianism were, quite naturally, not interested in encouraging the spread of economic knowledge. To some extent they even organized protective groups to restrain the spread of such understanding. It is not surprising, therefore, that numerous "isms" have evolved. Unfortunately, most of these doctrines have concentrated attention upon the possibilities of destroying economic forces rather than upon the spread of economic understanding.

Just as freedom under political democracy assures every man the opportunity of life, liberty, and the pursuit of happiness, restrained only by self-imposed legal regulations, so must freedom of enterprise under economic democracy be limited through self-imposed legal regulation. The assumption that property rights, guaranteed under our Constitution, gives the right to an individual to acquire all the property and power he is capable of securing because of the ignorance or incompetence of others, and regardless of the effect on others, is false. Such unlimited rights defeat the aims of democracy and strengthen the case for opposing philosophies which, in the majority of instances, would provide cures more vicious than the disease. The executive of the future must operate in accordance with principles of economic democracy or we shall cease to have democracy.

In the early colonial and expansion periods of the American commonwealth both political and economic democracy existed to some extent. Freedom to organize business enterprises was not restrained by laws, capital concentrations, or charters, nor was it necessary to cope with a miscellaneous variety of racketeers. Competition was not severe and personal judgment and industry

brought their own rewards. Those who worked for others for wages did so from choice, because it was easy to obtain free land and engage in agricultural pursuits or accumulate the small amount of capital necessary for starting a business enterprise. Economic freedom existed then to a greater degree than it has ever existed in any part of the world at any other time, but economic democracy gradually disappeared and those responsible for its disappearance did not fully realize that they were destroying it. It is quite obvious that in less complex societies each individual recognized his responsibility, not only to support himself but also to share in the formulation of the customs and laws under which he lived. It should be equally obvious that many of the difficulties of present-day democracy result from the loss of the sense of responsibility on the part of a large number of our citizens. Without a wide acceptance of individual responsibility democracy cannot survive.

There is a growing realization that industry cannot, in the long run, meet the objective of economic democracy as it relates to the interests of all parties concerned (ownership group, labor group, and consumer group) unless it is so organized as to provide a maximum production efficiency which, in an economic democracy, means maximum or near maximum return to all three groups. Since all three groups are necessary to industrial operation all three deserve to be served. In earlier periods of industrial development it was usual for the owner of a business or industry to manage it himself, and, because of the small volume of business involved, production faults and management shortcomings were not a matter of primary public concern. If the early owner of productive units succeeded, he added to the public wealth and was a socially desirable member—if he failed, the chief loss was to himself, because there were almost unlimited resources for others to exploit. Today the dependence of large groups on the successful operation of an industrial enterprise makes management a social responsibility. The executive who fails to meet

the social responsibilities of management denies economic benefits to large groups of stockholders, large numbers of employees, and a large clientele of consumers who, by the very nature of modern business organization, must depend upon the industry for the products which they need.

Concentration of capital in commercial organizations opens the way for abuses of power. So, also, does the granting of patents and charters which have been considered necessary to the free enterprise system. The modern executive must recognize that concentration of capital, whether it is his own or that of a widely distributed group of stockholders, represents a public trust. In a like manner patent rights and charters are granted by society, and society, in turn, is privileged to require that they be used in the public interest. The privileges of venturing capital, gaining patent rights, and obtaining charters, are extended to encourage ingenuity and enterprise and to protect those to whom they are granted in order that there may be profitable development of the ideas which they represent. If that development is injurious to public welfare, society will be justified either in withdrawing the privileges granted or imposing regulatory supervision in the interest of the public good. To some executives the corporation charter has been looked upon as their special privilege for public exploitation rather than a public grant. Such executives should study the Fourteenth Amendment and discover that property rights were guaranteed to all citizens, not a select group.

Opportunities for democratization of industrial enterprises are provided in the joint-stock corporation. If stock is widely distributed, management, labor, and the consumer are share holders. The executive, in turn, concerned with management of the business organization, represents the stockholders who, in a sense, are the public. Even though they do not represent the public en masse, executives who direct their activities toward the representation of large groups of stockholders of diverse interests are, in a general way, practicing economic democracy.

Management today faces complex problems and it will face even more complex ones if we continue to strive for economic democracy. Serious though they may be, the complexities of technology do not give rise to the greatest difficulties which management must face. It is the human element, individual and group, that poses the most difficult problems. Shareholders demand profits; the consuming public wants better products at lower cost; the government insists on its share of corporate income in the form of taxes, along with the privilege of experimenting with regulations; and the employees seek maximum remuneration accompanied by more favorable working conditions. If any one of these groups is favored to a greater extent than others, difficulties inevitably arise; management must become extremely astute in promoting harmonious balance because each group has learned to use pressure methods to support its demands.

In an economic sense the interest of all participants in democracy is served by achieving maximum production efficiency provided problems of distribution are adequately solved. The more that is produced the more there is to divide among the various groups, but the ends of democracy are served only when each group receives a fair share of that which is produced. Unfortunately, every collection of individuals which develops awareness of common group interests will at times let selfish greed blind them to their own long-range welfare. Owners have been shortsighted in the past, as have governmental and labor groups in recent years. The consumer group has often suffered because of its failure to organize, but there is evidence that the consumer group may eventually become the most powerful of all. Such a group could play havoc with both political and economic democracy, but since it would be the most representative of all groups, it could, with competent leadership, better promote the interests of economic and political democracy than could any other group. In the past, executives have often provided narrow and selfish leadership; now they must assume a broad social-minded leader-

ship in promoting economic democracy by overcoming selfish interests at other points. Failing this it may be predicted that executive functions previously exercised by business leaders will, in the near future, be delegated to political leaders who have shown themselves particularly inept in dealing with industrial management problems. The consequences of executive functions relating to economic activities being placed in the hands of political leaders are not pleasant to anticipate. Society will be better served through the development of able executives who understand economic problems. It becomes apparent, therefore, that if society is to be saved the pains of more muddling experiments, the executives of the future must be career men of professional stature.

SOCIAL SYMBIOSIS

There exists in the social world a definite relationship of mutual interdependence that is analagous to the mutually beneficial parasitism known as symbiotic relationship, or symbiosis, in biological fields. The clover growing in the meadow has on its roots a disease without which it would die. Little tubercles are formed on the clover roots by microscopic one-celled organisms which sap their sustenance from the clover plant. But in their life process these organisms draw free nitrogen from the air and, in turn, transform it into a substance which the clover plant needs and must have in order to live and grow. Thus the clover plant and its microscopic associate are dependent on each other for their very existence. Because of the close parallel between the mutual interdependence in biological organisms, called symbiosis, and mutual interdependence in the social world, it would seem that the best term to use to describe social interdependence would be social symbiosis.

A symbiotic relationship exists among the specialized parts of all biological organisms above the lowest levels of life. In the lowest biological forms of animal life a part can be destroyed without materially affecting the rest of the organism; in fact,

propagation of unicellular organisms through cell division occurs at an extremely rapid rate. In an ascending scale of animal life propagation occurs more sparingly, therefore preservation of life becomes more important. Interdependencies develop which foster survival of all members concerned. In the highest form of life, as in the human body, injury to one part of the organism seriously damages or destroys the whole. Likewise in complex social organisms damage to a particular part vitiates or destroys the whole. To carry the parallel of symbiosis further, it may be noted that in simpler forms of society social symbiosis is not evident to any marked extent. But with the growth of our modern complex industrial civilization efficiency has been achieved at the cost of greater mutual interdependence. This fact is lost sight of all too frequently, resulting in infantile and selfish attitudes which destroy the values we hope to promote. Enlightened self-interest must take into account this relationship and subordinate the greedy selfishness that tends to destroy the social organism. Lewis Mumford recognizes this when he states: "Individual self-sufficiency is another way of saying technological crudeness."²

In the modern social organization there must be a condition of social symbiosis between capital and labor, between the producer and the consumer, between agriculture and industry, and among all similar groups. This condition of mutual interdependence exists among individuals, between individuals and groups, and between groups. Even groups as large as nations today are, to a great extent, dependent on other peoples in other nations for their well-being. By way of example it may be observed that war in Europe and the Far East affects the lives of every American. But the pattern of social symbiosis does not even remotely resemble state socialism or world socialism. It more nearly resembles intelligent, co-operative alliances. Social symbiosis presumes that beneficial parasitism will be encouraged and socially harmful parasitism will be destroyed.

²Mumford, Lewis. *Technics and Civilization*. Harcourt-Brace, 1934. p. 280.

A condition of mutual interdependence does not mean that there will not also be competition and conflict. However, it does mean that conflict may be fatal if unchecked. It means that the welfare of all participating members demands an integration of conflicts to the end that the welfare of each and every member may be promoted in a manner commensurate with widely differing interests, desires, and ability. Social symbiosis is a survival philosophy which provides for the indisputable differences in individuals which have been present among members of a society throughout all periods of man's existence. In applying this philosophy to industrial organization one may well consider the significant observation of Orway Tead when he says: "Corporate unity of purpose and action can be brought out of conflicts only when, in a consistent and reasonably permanent way and in terms of practical working procedures and not merely in verbalisms, the organization is demonstrating clearly to all members that it considers them as partners in a group enterprise and not as hired agents for piling up of excessive profits for absentee owners or for fulfilling purposes to which they naturally do not find it possible to be a party."⁸

EXECUTIVE ABILITY MUST BE SOCIALLY ENCOURAGED

Executive ability of high order is scarce as is great ability of any other type. It is of vital importance to the success of modern industry, and in turn to society, that executive ability be encouraged and given the rewards which it deserves. Unless the return justifies it, a man with the brains and ability necessary to be a good executive will not invest the time and effort required to secure essential training and experience, nor will he accept the arduous burden of responsibility involved. The executive has been forced to learn the lesson of co-operation with labor. Now the principal lesson that labor must learn is that executive ability is not common and deserves reward to the extent that it does exist. This is the

⁸Tead, Orway. *Human Nature and Management*. McGraw-Hill, 1929, p. 144.

lesson which labor must learn before co-operative industry can succeed. To some it would appear that an ideal situation would exist if the worker controlled the tools of production in our mass-production industries through co-operative ownership. But it takes more than knowledge of production tools to successfully operate a modern factory. Without managerial knowledge and ability plant operation fails. This may be illustrated by describing an experiment in co-operative enterprise which failed.

A small glass plant encountered financial difficulties and ceased operation. The bank which held the mortgage on the property as security for loans found themselves in possession of a glass plant. This, of course, left the employees idle and one of them conceived the idea of getting the workers together and making arrangements with the bank to run the plant. The worker presented the proposition to the bank officials, and, while they were skeptical, they agreed to finance the raw materials if the representative of the employees could find a market for the product and get the other workers to put in their time. Being an exceptional young man he was able to secure the necessary order, and called the boys together and presented the proposition to them. They were doing nothing, therefore, it seemed that here was a chance for them to make up a batch of glass and divide the profits remaining after the raw materials were paid for, and a set percentage of income paid to the bank. It was an appealing proposition because dividing the profits and paying off the debt meant that eventually the employees would own the plant.

Enough of the workers agreed to the proposition to make it possible to re-open the plant, consequently the glass was made and shipped to the purchaser. Again they had money to pay the bills which each of them owed the landlord and grocer. More orders and more materials were secured, and with the plant again operating everybody seemed to be happy. That is, everybody was happy except another large glass manufacturing concern which found it was losing business to this enterprising, re-organized concern,

and they didn't like the situation at all. After considering the matter they decided to hire the man who had conceived the plan and who was responsible for running the re organized plant. They offered to pay him ten thousand dollars per year in return for his services. This he thought was a good time to take up with the other boys the question of his remuneration. Up to this time he had shared equally with the rest of the workers in the division of the labor income. He felt, rightly, that he was entitled to more money because of the value of his contribution and the extra hours which he devoted to his new job as manager. But the other workers did not see it that way. As one expressed it, "Any one of us would be glad to ride around the country after orders rather than go down into the pit working with hot glass." All of them felt that any one of them could do the boss's job just as well as he was doing it. So the worker who had put the plant back into operation accepted the offer made by the competitor, gave the other workers his best wishes, and told them just how he had gone about doing the job.

A new manager from among their group was elected by the workers. He was extremely popular with the men, but he could neither get orders nor manage the business, and as a consequence it was not long before the plant was closed again. The bank now had an idle plant on its hands, and the workers loafed at home hoping for a job that would bring in money for food and rent. Eventually the bank hired a new manager, paid him considerably more than ten thousand dollars per year, and the workers returned to their jobs still wondering why their co-operative venture had succeeded so well at first and then had failed. Even with so plain a demonstration before them they still argued that the enterprising member from among their group who had demonstrated executive capacity had no right to ask for more pay than they, themselves, had received. Of course they were willing to pay him over-time even to the extent of double-time, but they felt he was not a good citizen simply because he had learned the

value of the talents which he possessed. To them he had become a "damned capitalist," and they hated capitalists all the more as a result of their disappointing experience.

LABOR AND THE EXECUTIVE PROBLEM

Just as every executive has a labor problem, so every working man has an executive problem. Management is concerned with questions relating to the maintenance of conditions which promote efficient utilization of labor and sooner or later discovers that the solution of labor problems involves questions of morale, job satisfaction, and many others. The worker, whether he belongs to a union or not, faces the problem of securing proper working conditions and remuneration, which includes a very essential element, namely that the concern for which he is working remain in business. The worker, therefore, must directly or indirectly interest himself in the question of encouraging good management. The relation between employer and employee is definitely two-sided, but that does not mean, as is sometimes assumed, that these interests are opposed to each other. On the contrary, experience shows that, in the long run, their common interests are far greater than their differences. In the past, some executives have provided the type of management which has made money by exploiting labor and that condition has produced a type of labor organization which frequently openly admits that it would like to exploit the owners and believes that it could run the business better than the executives. Both types of exploitation lead to the destruction of the producing power of the organization and thus destroy the source of income from which both management and employees must be paid.

With the development of large corporations there arose conditions which made it imperative that some form of labor organization be developed to represent labor's viewpoints. In the early days of industrial growth, business organizations were small and the employer and employee knew each other intimately. More-

over, the conditions were such that any man could strike out for himself at any time he wished and frequently find more satisfactory conditions in which to work. Free land was available nearby if he wished to leave industry and engage in agriculture. If a new job or farming venture did not appeal to him, it took but a few tools for him to set up business for himself as a blacksmith or carpenter, or some other trade if he possessed the skill, and it was not difficult for him to get the small amount of capital necessary to enter the field of merchandising if he wished to do so. In many instances if an employer attempted to take unfair advantage of workers, they set up business for themselves. But today it takes enormous amounts of capital to establish manufacturing concerns that can produce economically enough to meet competition. Skills are so highly specialized that they are not easily transferable to other ways of earning a livelihood if a worker wishes to leave his present job. It is but natural, therefore, that the worker should develop a feeling that he has a vested interest in the job. To him this interest in his job is the only substitute for the easy transfer to independent enterprise which was possible a generation or so ago.

In passing it should be noted that the disadvantages, such as difficulty in starting an enterprise, are incident to a tremendously increased earning power and a distinctly higher standard of living. Wages in colonial days were less than a dollar a day even in skilled lines; there were no automobiles, radios, bathtubs, or automatic stokers to buy and enjoy. For the sake of recapturing opportunities for individual enterprise no one wants to go back to the "good old days," but we should salvage all of the values that those days provided which may be lost if care in social organization is not exercised. Early Americans had economic democracy and, therefore, had a sound foundation for their experiment in political democracy which, with all of its faults, has been the most successful of the people's governments that has ever been designed. When we learn to use our vast resources of power and

to apply technology in such a way as to utilize them to the service of mankind, we can have many of the advantages which were enjoyed by citizens of a youthful nation along with greatly increased production which provides higher standards of living. Labor often fails to realize that some of its gains have been made without the exercise of any thought or planning on the part of labor.

Unfortunately, some of the experiments in labor organization are patterned after the worst features of past exploitation of labor by capital—which was ruthless disregard for the rights of others and use of power to force unwarranted concessions and which, in the long run, lessened the essential strength of the organization and its power to produce efficiently. Ruthless excess in the use of power by capital in the past was, in some cases, the result of greedy leadership eager only to make its unholy profit at the expense of the workers it purported to protect. However, ruthless management was not as widespread as some labor exponents would have us believe. There were good and bad employers, but more often there were employers that were for the most part good but who engaged in some bad practices, and bad employers who had some good qualities. There were bad employers in sufficient number to cause labor to organize in opposition, and if labor copies the bad practices of management of the past it will, in turn, force the consuming public to organize in opposition to both.

Undoubtedly there have been and still are labor leaders of the racketeer type who impose upon the public, the employers of labor, and the laborers themselves. Unquestionably other labor groups have been under the guidance of high-minded idealists who have frequently made mistakes even though their intentions were good. The activities of organized labor have been both good and bad, mixed in varying proportions. Even the most ardent champions of organized labor would not defend the evils that have existed if they fully realized the costs to the labor movement. And none but the most bigoted opponents would condemn the

good that the labor movement has accomplished even though they might express doubt as to the possibility of labor leaders learning how to manage industry. The problem for economic democracy is one of eliminating the evils of organized labor and fostering the good that may come from well regulated group action. In the promotion of defensible labor practices there should be hearty co-operation among all parties concerned—employer, employee, and the public.

The most constructive steps which labor can take, those which will benefit them most directly, are: (a) learning to select suitable executives for their own organizations, and (b) exercising intelligent democratic judgment in formulating the rules and by-laws under which they are to function as organized groups. One of the most serious charges made against labor organizations is the claim that they often are undemocratic; often the rank and file have no more voice in the control of their affairs than did Hitler's vassals. If labor does not engage in thoroughgoing house-cleaning and correct vital weaknesses, it may expect that public interest will force regulatory legislation. Obviously it is to be preferred that the workers make the corrections themselves and thereby reduce the need for public regulation. A series of challenging articles by William Hard which have appeared from time to time in the *Readers' Digest* contain many valuable suggestions which labor organizations would do well to consider. Frequently Mr. Hard cites cases which point the way to better labor practices:

The National Association of Die Casting Workers of the CIO has a contract with the Doehler Die Casting Company of Toledo. It has helped to take that company out of losses into dividends. Its chief official is Edward Cheyfitz.

Mr. Cheyfitz is only 28 years old. He went through the University of Michigan to become a professor of mathematics. Then he got a job in the Doehler company's engineering department. Now he is a union agent with efficiency ideas.

In 1938 the Doehler company was losing money fast. It has three plants and 4,000 workers; but, as the president of the company, Mr.

Charles Pack, says: "The workers were working against the company."

Then Mr. Pack and Mr. Cheyfitz made a bargain. The company would give the union a "union shop." The union, in return, would go all out to improve the company's manufacturing performance. It would try to increase output and to lower costs.

It went half-and-half with the company in hiring a research engineer. It helped to organize research and efficiency committees in the plant. It established a suggestion system whereby 25 percent of the dollar value of a new idea would go to the worker suggesting it, 25 per cent to his fellow workers, and 50 percent to the company. It sought to prevent waste and increase the production of each man and machine.

In three years Mr. Cheyfitz's idea of "industrial democracy" raised wages in the Doehler company by a total of \$2,000,000, and lifted the company from earning nothing for stockholders to earning more than \$1,000,000 for them in a twelve-month period, *even without war contracts*.

Today, along with war contracts, the union and the company have a ten-man joint committee empowered to lay aside any shop rules which might impede war production. Last month the Navy awarded the Doehler plant its 'E' pennant for war-production efficiency.

Mr. Pack says:

"I am proud of the union in our plant. It is a main part of our company. I am proud of Eddie Cheyfitz, who is a fighting, progressive, constructive labor statesman."

Mr. Cheyfitz adds: "I think there will be more unions like ours when there are more managements like Mr. Pack's."

But no union is likely to contribute to efficiency unless it is honestly and democratically organized and administered within itself. Mr. Cheyfitz's union is. Many unions are. A "good" union has to have two qualities. First: An internal structure which keeps power in the hands of the members and prevents gangsters and racketeers from getting control. Second: A desire not to *supplant* but to *supplement* the efforts of management.⁴

Executives in labor organizations should be selected on the same basis as any other executive; that is, on the basis of ability to

⁴Hard, William. "Needed Now!—A Positive Labor Policy for Production." *Readers' Digest*, April, 1942. pp. 31, 32.

do the job. Internal politics, personal salesmanship, and other factors often tend to prevent able men from getting and holding positions as labor executives. This opens the way to control of labor organizations by self-promoters and rabble rousers. If labor becomes aware of the need for sound organization directed by wise leadership, and becomes convinced that it is vital to their welfare to select able leaders, we may expect less public resentment to be directed toward labor unions. The labor movement as it is understood today is relatively young, and great strides have been made; but the future of the labor movement depends upon the ability of the members of labor organizations to correct the faults and weaknesses which are now apparent to all except the entrenched labor dictators. It is futile to expect entrenched interests in labor to foster reforms because many labor leaders are using their positions to satisfy a desire for personal power and wealth. With many labor leaders, personal interests come first, and regard for the welfare of the mass of workers is secondary.

The crucial test of the people's ability to function as a democracy lies in the capacity to select capable leaders and to see to it that these leaders discharge responsibilities through the use of authority possessed only because it has been delegated by the group. Many nations have demonstrated that it takes time to develop these abilities in a people, for after a short period of experiment with the democratic form of government several nations have reverted to dictatorships simply because the masses were unable to exercise the power of self-government which they had temporarily acquired. Some of our labor unions resemble these nations in that they have allowed themselves to be inveigled into turning their organizations over to men who have by degrees taken away all of the power of self-government from the group.

A strong labor movement functioning democratically would be in harmony with the American way of life. Today it is widely believed that national legislation favors labor, but labor cannot

be made strong by legislation. If labor operates contrary to public welfare, legislation of a restrictive nature will and must come, just as such legislation was formulated, in the form of anti-trust laws, to combat monopolistic control of production in violation of public interest. Restrictive labor legislation will be more or less drastic depending upon the degree to which labor learns self-regulation; therefore, the task that lies before the real leaders of the labor movement is one of developing capacity for self-government. This is a difficult task, but it is not insurmountable. It calls for the development of an educational program and motivation of it. The first step toward such a program would be that of making a job analysis to determine what constitutes a capable labor executive.

DEMOCRACY'S GREMLINS AND FRANKENSTEINS

In addition to the delegation of power to selected individuals who function as officers, authority is sometimes centered in committees in democratic organizations. Committees become necessary in democratic action because matters with which the group must deal arise in such volume that the majority group cannot possibly give consideration to all of them. Committees are expected to serve the group and in function should be advisory, but they often acquire or exercise executive powers by virtue of failure of the executive or the group he represents to direct committee action. Committees may disrupt democratic action if they are permitted to go unchecked. The chairman of a committee will often assume powers not directly delegated to him. The capable executive learns to use committees but he will often find that committees act in such a way as to cause him embarrassment. The methods used by committees in circumventing democratic procedure are well illustrated by committees in our national legislative bodies.

If we may go so far as to say that committees sometimes become the gremlins of democracy, it seems justifiable to charac-

terize certain types of bureaus as the Frankensteins of democracy. Bureaus are established to discharge certain routine functions, and, if they are to be held within bounds, these functions must be rigidly defined. Bureaus serve the group by handling recurring details according to an established pattern. They have been used by every political subdivision from city through state to national government, and to a lesser extent in other social organizations, such as labor unions, farm groups, educational bodies, and even in industrial organizations.

Bureaus usually start as a result of a recognized need and so long as they meet this need they serve the ends of democracy. They become destructive of democracy chiefly in three ways: (a) continuance beyond the period of need through neglect by the body which created them, (b) continuance in power through development of political support, and (c) extension of activities beyond the purpose for which they were established. Since bureaus are easier to establish than to disband they should be used sparingly and set up for limited periods subject to renewal. In governmental affairs the extension of their period of activity beyond the point of need entails needless duplication of effort and often results in shameful waste of public funds. However, this drain on the public purse is less dangerous than the tendency for bureaus to reach the stage of development which places them beyond public control.

Since administrative officers of bureaus are not elected by public vote, they often fail to realize that their prime purpose is that of rendering service. It is easy for a bureaucrat to reach a state of mind in which he thinks the public should be responsive to him rather than himself being responsive to public opinion. Being a specialist, the bureaucrat also tends to magnify the importance of the function which he represents and seeks power to extend that function. Bureau heads may even invent corollary activities to make their work appear to be of greater significance. In recent years we have seen bureaus in our national government

adding public relations men, press agents, and legal counsel to their operating staffs to assure perpetuation.⁵

Many governmental bureaus discharge duties comparable to those of staff officers in a line-and-staff organization. Generally such bureaus merit commendation. By degrees, dating from World War I, elected representatives have deemed it desirable to experiment with administrative law. It is bureaus whose province lies in the field of administrative law that seem to come sharply into conflict with the democratic way of life. In attempting to regulate civilian life during World War II it seemed to many that Gestapo methods were added to the faults already possessed by governmental bureaus. Return of governmental bureaus to staff functions and the use of bureaus in business organization only in a similar manner appears to be the only solution compatible with democratic philosophy.⁶

CENTRALIZATION AND CONCENTRATION OF POWER

The democratic order foreseen by our founding fathers was one which provided for strong local autonomy on which was superimposed a loose confederation of local units. This plan provided under the Articles of Confederation failed to operate satisfactorily, and a stronger union was provided through the Constitution. As the nation has grown, many of the strong central powers of government which were provided for in the Constitution, but not used in transition years, are now being exercised by the administrative branch of our government. Some observers profess to see in this tendency a swing away from democracy which can only be retrieved by providing more responsiveness to the will of the people in Congress. Eventually, if the trend toward central control continues, we may be obliged to adopt some such

⁵*Newsweek* for March 22, 1943, page 14, reported the newly appointed administrator of the Office of Price Administration as being amazed to learn that Britain's price control set-up required only ten lawyers, whereas OPA's legal staff numbered 2,700.

⁶For case illustrations of bureaucratic usurpation of power as well as administrative stupidity see particularly articles appearing in *Reader's Digest* for June, August, September, and December, 1942.

plan as the "lack of confidence" technique of the English Parliamentary system in order to assure continuance of democratic government.

The trend toward centralization of government has been paralleled by a similar trend in business units. The merger which resulted in the formation of the U. S. Steel Corporation some forty-five years ago set a pattern that has been widely imitated. In many instances, as has proved to be the case with U. S. Steel, there has been sound economic justification for such action, demonstrated by greater efficiency of production. In an economic sense, gains have resulted from mergers in many instances, but it may be questioned whether the ends of democracy have always been served. Mergers in other instances have been little more than vehicles for financial manipulation, and the resulting corporate structure which emerged has been unwieldy and unprofitable to everyone concerned except the promoters.

Many factors have contributed to the tendencies toward centralization. For example, in the age of steam power and steel it was sound economy to bring materials, machines, and workers to a centralized power plant to carry on production. However, in an age of electrical power transmission and ever-expanding variety of production materials there is no similar need for centralization. Furthermore, there are many cogent arguments against too great a degree of centralization. Many of these are social, and many of the financial gains are offset by social maladjustments. Furthermore, financial gains to the corporation may also be vitiated by losses in distribution. Financial gains made by a corporation through production savings may be offset by increased cost to the wage earner in such matters as rents, transportation, and health maintenance growing out of the fact that he must live in a congested area. A further community loss may be sustained by the fact that large capitalization means wide distribution of stock and bond holders who spend the interest and dividends resulting from production in communities far removed from that in

which the company operates. By way of example, absentee ownership of manufacturing concerns located in such cities as Detroit and Pittsburgh result in investment returns being spent elsewhere, thus preventing civic improvement of the community in which the wealth represented by investment returns is created.

Absentee ownership is less likely to be true where enterprise units are small. Bigness, concentration of power, and other factors often worshiped as such are not always worthy of the tribute paid to them. Careful analysis frequently discloses that decentralization of production is more profitable than centralized production. For example, Ralph Borsodi⁷ found that the savings resulting from mass production of canned soup were more than offset by increased costs of transportation and distribution of the finished product. The balance between centralization and decentralization that is sound economy is constantly changing. Not only are the general forces constantly shifting, but conditions vary with the type of business and industry. Where one industry may find it profitable to further centralize production or administration of operations, another finds its opportunity for greater gains through decentralization. In a democratic sense both small and large units of business should be permitted to operate as long as there is no abuse of power, but by their very nature small businesses require more protection than larger units.

The executive connected with big business who opposes protection for the little fellow or who engages in practices deliberately designed to harm small business is both anti-social and short-sighted. Large business units are no more safe in a totalitarian social order than any other. Since it is believed that a wide distribution of small business units acts as a buffer to totalitarianism, the executive of the large business unit displays intelligent self-interest by supporting the extension of privileges to small businesses. Executives of large business units who fail to foster closer relations with the executives of smaller units are not only missing

⁷Author of *This Ugly Civilization*, Harper, 1933, and other works.

an excellent opportunity to promote democracy among executive groups, but are failing to contribute to the perpetuation of democracy as a way of life. The strongest arguments for the free enterprise system are those associated with the small business. Those who live by big business are likely to lose their opportunity if small business does not survive.

THE CHANGING SOCIAL ORDER

Even though we cling tenaciously to democracy as a way of life, we shall never have a static social order. Change is continually occurring, although at times change is slow, and the nature and direction of such change are not always easily perceived. Slow as change may be, the slowness of certain executives in reorientating themselves is even more marked. If an over-conservative policy of resisting change is too long continued, a great force is built up in reserve, like water behind a dam. When this dammed up force breaks into action, it is likely to be destructive. Sometimes social change which resembles revolution is necessary to overcome the resistance to change by those who, because of their executive positions, often hold the balance of social power. If the executive group is alert to the force of social change, and if it exercises sufficient insight to sense the direction of change, the momentum of change may be guided into constructive channels and made to produce something of social value. No other group in the nation is in a better position to direct the flow of social change than are industrial executives.

Too often business executives display a tendency to quarrel with those who advocate modification of social institutions. It is but natural for an individual who is fortunately situated in an economic and social sense to resist experimentation with untried remedies for alleged social maladjustments. The executive cannot be blamed for enlightened conservatism, but he can be blamed for shortsighted conservatism.

Even those executives who do not enter into argument with those who propose social modifications often make a mistake of

equal proportions by dismissing proposals relating to social and economic organization as unworthy of serious consideration. It would be far better to examine, seek to comprehend, and promote action for or against institutional changes in a democratic manner after considered judgment of merit has been formed. Because ardent supporters of certain viewpoints are over-enthusiastic is no reason to disdainfully dismiss their ideas as "crackpot." The executive should examine all social ideas, analyze them critically, and arrive at sound evaluations, selecting such truth as may be necessary to formulate sound policy.

In preparing to exercise judgment on social problems the executive should familiarize himself with proposals which attract wide popular interest, not only because they reflect public thought, but because they may be suggestive of useful ideas. Every year sees one or more expressions of viewpoints which leave an impression on the popular mind, some of which are more lasting than others.⁸

All too frequently executives fail to realize that the place which they hold in future society may be considerably different than the position in which they find themselves today. Whatever

⁸If for no other reason than as a challenge to thought on social problems executives should read books which gain wide public attention. The following books are scattered examples of expression of thought representing different points of view over a period of years

Smith, Adam. *The Wealth of Nations*. First published in 1776.

Marx, Karl. *Capital*. 1867.

George, Henry. *Progress and Poverty*. 1879.

Ogburn, W. F. *Social Change*. Huebsch, 1922.

Pound, Arthur. *The Iron Man in Industry*. Little Brown, 1922.

Beard, Charles A. *Whither Mankind?* Longmans-Green, 1928.

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may have been the security of the position of the lawyer-banker-entrepreneur form of capitalism in the past, there is no such security today, and the future may bring less security. But whatever modifications may occur in social or economic structure, executives will be needed. Whether the executives in the evolving society will be those that are functioning in the present social order depends on the extent to which present executives participate in the transition, which, whether rapid or slow, is inevitable. The authors do not pretend to be able to predict minor fluctuations in social change. History indicates that periods of extreme liberalism have been followed by swings toward conservatism; however, these intermediate swings are fluctuations within a trend which appears to be toward a more liberal social order.

Previews of social changes both of a liberal nature and a reactionary nature can sometimes be had by studying social changes occurring elsewhere in the world. Somewhat different evolving social orders have been available for us to study in Russia, Germany, France, Great Britain, and Sweden in recent years. Elements of all these changes elsewhere in the world are reflected to some extent in the vast social organization that is American democracy. For example, those familiar with the co-operative movement in America can see it in more objective and magnified form in recent social developments in Sweden. In studying social variants in other nations we may well ask ourselves whether we can learn something of value from their experiments. There has been much discussion in America which would indicate public reaction to occurrences in Germany, Russia, France, and England, but it is quite possible that we have overlooked important social experiments in Sweden. Speaking of it, Marquis W. Childs states: "Sweden is almost the only country in the world in which capitalism has worked during the recent decades. Checking the evolutionary development of capitalism to which monopoly tends to distort the cycle of prosperity and depression, Swedes seem to

have interrupted the process of economic destruction which marked the life of other industrialized countries."⁹

POSTWAR PLANNING

The potential value of executive thought and co-operative action is nowhere fraught with such great significance as it is in respect to problems of the postwar period which we must eventually solve. These problems will be of greater magnitude than any with which we have ever been confronted as a nation. A general statement of the social significance of postwar problems has been clearly outlined by Dr. Robert E. Doherty, President of the Carnegie Institute of Technology.¹⁰

After the war we shall live in a new world. It will be a world requiring fundamental readjustments in our thinking and in our way of national life. Indeed we are already well into that world and are advancing further into it day by day. To understand that all of this is so, we need not depend wholly upon the almost unanimous conclusions of serious students; we need only to look about us. Intense social stresses, widespread confusion of purpose, and gross abuse of privilege are all too evident. National action has leaped far beyond national thinking. The simple fact is that this country is set up under a theory—the theory of individual rights and democratic procedures—and there is, after all, a limit to the extent to which that theory may be contravened. To go too far is to crack up. Flexible as history has shown the theory to be, there is yet a limit, as was demonstrated, for instance, in 1861. And since we have been rushed from our simple beginnings into the new, complex world, impelled first by technological development and now thrust headlong by the demands of war, we have got to accelerate our thinking to keep pace with our actions or we shall again stretch our theory beyond the breaking point. We must readjust our thinking and our attitudes regarding national and community life to bring these again into workable accord with our theory of democratic government; else there can be no lingering remnant of justification for the assumption that, as a nation of once free people,

⁹Childs, Marquis W. *Sweden, the Middle Way*. Yale University Press, 1936. pp. 160-161.

¹⁰Statements quoted from Dr. Doherty were presented by him as chairman of the Engineers' Council for Professional Development at the 1941 annual meeting of the American Society of Mechanical Engineers.

we are still capable of intelligent action, or worthy of freedom.
 . . . The problems of sociology, economics, and technology are no longer merely technical in nature. The technical aspects of the problems in each of these fields are indeed difficult enough, but there are new elements to be recognized, new complications beyond those considered in the past. One is the imperative necessity now of recognizing more fully the interdependence of situations in these different fields. For instance, the technical problems of economics and the technical problems of engineering involved in the design of a piece of apparatus have of course usually been co-ordinated in the past, but the sociological problem created by the introduction of the apparatus into social use has not been adequately taken into account. Or, the other way around, a sociological problem—say, the employment of idle people who want to work—may not be solved because the technological or economic problems concerned are not solved. In other words, we have reached a stage, as I understand it, where the interdependence of situations in these different fields must be recognized. Human life is not divided into subject-matter compartments; we can't continue solving one part of the problem and think we have solved the whole; we must actually *solve* the whole. Then another complication is the necessity of readjusting our philosophical base. Merely recognizing the interdependence of situations is not enough. The solution of these problems, if there is to be one, must be geared into a principle. That principle is not new; it is just forgotten—the principle of individual rights and democratic procedures. If our national problems are to be solved, the parts must be related to the whole and this relationship must be made to accord with this fundamental principle of our existence as a political unit. And the intellectual task involved in the initiation and consummation of such a complex national readjustment is one in which professional men in all fields—including the social and physical sciences, the learned professions, business, engineering, industry, labor—are obliged to assume leadership, and obliged also to recognize, even in this process of assuming leadership, the principle of democratic procedures.¹¹

That executives are concerning themselves with problems of the postwar world is indicated by published material of recent years. At the War Congress of American Industry held in December, 1942, leading executives discussed postwar problems and suggested ways of carrying ideas into action. Among those

¹¹*Mechanical Engineering*, January, 1942, pp. 10-13.

presented, probably the most concrete was that of D. C. Prince, vice-president, General Electric Company. The following is an excerpt from the proposal by Mr. Prince.

The first step toward harnessing our power twins—demand and purchasing power—is to determine what we should like, as a nation, to have our producers produce. That would be, naturally, as much as possible of the things our people want. On a straight-time basis, with full employment estimated at 57,000,000 people, we can produce goods and services in a peacetime year to the value of 135 billions of 1941 dollars. Since the demand and purchasing power are great, we may prefer to work overtime, in which case the output may reach 150 billions of dollars.

In predicting how such a total production will be made up, we have the record of 1941 as a starting point. In that year we had a gross national output of \$119.5 billion of which only about ten per cent was war material. The items that made up the remainder of that output were things people wanted to buy, and did, in fact, buy of their own choice with purchasing power they had. It is possible to build on such a year as 1941 a picture of what a postwar year can be.

When they have the money, people buy according to established patterns. These patterns have been studied over a period of years. By adapting the past spending patterns to the purchasing power which will be associated with full employment, following techniques already established and proven, it is possible to determine fairly accurately how the total should be broken down into its component parts.

Man's first desire is to satisfy hunger. If his means are limited, he buys first enough bread and potatoes. Then he begins buying meats, vegetables, and dairy products. When his hunger is satisfied, he buys clothes. Then he begins thinking about a home, an automobile, a radio, a refrigerator, etc.

Over-all, what the average man in a given income group will buy is just as certain as his expectation of life. Market analysts employ tables which will predict purchases just as actuarial tables predict life and death. In fact, the data are prepared by the same department, the Department of Commerce of the United States. That our actuarial tables should be turned out by the Census Bureau seem so obvious that one forgets that the first such tables were the work of private companies. National market survey work also has been done by many individuals and trade associations. However, there are so many cor-

relations that a better over-all job of synthesis can be done by a centralized agency than by an isolated group; and it seems only logical that the Department of Commerce should serve business by putting its data into the form most useful to business.

. . . Knowing the most probable demand for goods and services that can be filled in a peacetime year, the second step will be to see where those goods and services are to come from. An incomplete answer can be made to that question by seeing what productive capacity already exists to meet the country's needs.

Staples, such as bread and canned goods, which will be consumed in almost the same quantities after the war as before will probably be produced by the same producers and distributed through the same channels.

Manufactured foods and dairy products will continue to be produced and distributed by the same agencies; but the amounts will have so increased that either the old producers will have to expand or new producers will have to come into the field. Actually, both things will happen. The amount of expansion required or the number of new producers who should enter any given field should be subject to some determination.

Manufacturers who have converted their plants from a peace product to a war product will probably convert back. But they will not all convert back to exactly what they were doing before the war. However, many manufacturing establishments did not exist before the war, or if they did they have grown beyond all recognition. Not only will those who have no peacetime business commensurate with their size be wondering what business to undertake, but old established concerns, will be wondering whether after all they can fully exploit their opportunities in the old line.

If all these producers are left to their own devices with no way of deciding what field to enter, a condition of confusion will result which will not be profitable for anyone. As soon as material and manpower can be spared from the war effort, manufacturers will start to produce peacetime products. Since almost everything will be in demand, the tendency will be to produce those goods which can be made the quickest. An oversupply will be quickly built up in some lines, resulting in layoffs of workers and loss of profit for employers. With men laid off, purchasing power will fail and government will be called upon to make up the deficit.

To avoid such an outcome, a democratic method must be found whereby producers can assign themselves the job of providing goods and services in roughly the proportions that will be wanted. A start in this direction is already under way. At the instance of a business group, analysts are checking known sources of supply against the probable demand for various kinds of goods. The excess of demand over supply in each case will be a clue to the amount of new productive plants to be supplied by someone.

It would seem a logical next step for suppliers to report their intentions to a central agency. Companies A, B, and C report separately through their trade association or directly to the Department of Commerce their intentions to provide facilities to produce \$X worth of washing machines. The sum total of these intentions would be made available for all to see. As long as the total supply capacity was less than the probable demand there would be an invitation for expansion or entry of new suppliers.

The analysis has already been undertaken to estimate the supply of goods and services from past existing sources. By the amount these supplies fall short of estimated demand, new productive capacity in the different lines will have to be created. By the same token, since the total production forecast requires all our manpower resources, there will continue to be an excess of demand over supply until all the available work force has been utilized. Conversely, those who occupy—or contemplate occupying—an overcrowded field would have an opportunity to change their minds, thus saving both time and possible losses.

A summation of information on supply and demand will show the way toward distribution of productive facilities among the needed goods and services wanted by the country. Once a reasonable correspondence has been obtained, all factors of production will have the best assurance of profitable operation. Municipalities and labor groups will have the best assurance of full employment. Without such a method of joint operation, we are faced with the need of some sort of regimentation which might impair the freedom of action which has resulted in the high development of our industrial machine.

If the business community can make such a self-allocation procedure work, a foundation will be laid upon which the actual reconversion procedure can be built.¹²

¹²Prince, D. C. "Postwar Planning by Corporations." Address delivered before the War Congress of American Industry, December 4, 1942.

One of the most concrete proposals for executive action in postwar planning is contained in a handbook for employers prepared by the Committee on Economic Development. This committee is an organization of businessmen co-operating with the United States Bureau of Foreign and Domestic Commerce. In the handbook, entitled *Preparing for High Levels of Employment Productivity*, the committee outlines in detail the topic, "How to Proceed with Postwar Planning." Topics covered are "Company Objectives," "Assigning Responsibilities Within Company Organization," "Setting Up a Procedure for Planning," and "Questions Relating to Postwar Planning which Must Be Studied Now." The questions proposed for immediate study relate to property development, production, purchasing, financing and accounting, marketing and distribution, personnel and general policy. Whether an executive is concerned with postwar planning (and most certainly he should be), or whether he is interested only in short-range planning for his company, a study of the proposals made by the Committee for Economic Development will prove extremely valuable.¹⁸

EXECUTIVE LEADERSHIP

The executive may depend for attainment of results upon authority vested in his position, he may disregard the element of authority, or he may combine authority with leadership. It is evident that the executive with capacity for leadership is in a much more favorable position to build morale and maintain an efficient organization than one who lacks leadership qualities. Some executives have been successful even though lacking qualities of leadership, but such men have been aware of this shortcoming and have employed subordinates who were able to compensate for leadership deficiencies in the superior executive.

In larger business organizations the major executive is frequently out of contact with the rank and file of employees; there-

¹⁸"Preparing for High Levels of Employment Productivity," Committee for Economic Development, Washington, D.C.

fore, his qualities of leadership have importance to the extent that they influence the subordinates closely associated with him. As the effects of leadership are such that they are reflected by subordinates, the executive who is removed from the mass of employees must operate as an element in the whole social order, and such functioning calls for qualities of leadership. In the past there seems to have been a lack of social leadership on the part of business executives either because of lack of capacity or unwillingness to assume leadership responsibilities within the social group. In a democratic social order leadership qualities for business executives appear to have more importance than has normally been recognized.

While leadership qualities are a desirable adjunct to other executive characteristics, leadership qualities alone are not a substitute for other important elements in executive ability. Religious leaders, political leaders, and others who deal with the problem of influencing large groups are frequently lacking in executive ability. It is one thing to lead people by appealing to emotions and by promising to satisfy self-interest and greedy desires, and quite another to lead people toward productive economic and social objectives. The leadership practices of the business executive must be directed toward a sound objective. In a sense, therefore, the limits of appeals for the attainment of leadership are more restricted in the case of the business executive than they are for politicians, reformers, and others who deal in mass social movements.

RESPONSIBILITIES AND RIGHTS ARE RECIPROCAL

The contention that rights must be accompanied by responsibilities is nowhere more true than in the instance of the business executive who assumes the rights of social leadership. Many business executives have been criticized for attempting to exercise the right of leadership without assuming attendant responsibilities. Leadership exercised by business executives for selfish ends does

not deceive others as readily as does demagogic leadership. The altruism of the business leader must be self-evident to encourage acceptance if such altruism is directed toward the ultimate greatest good of all parties concerned. It can be a form of educated self-interest. The business executive who assumes social leadership must learn that there is no higher form of self-gratification than the sense of contributing to the welfare of others.

A study of the history of industrial leadership in America raises many doubts as to the willingness to assume social responsibility by those who have attempted to play such a role. Bankruptcy, insolvency, and other forms of capital dissipation line the pages of American industrial history. Furthermore it has been asserted that the efficiency of the average group is about 50 per cent when measured in terms of production possibilities. From a financial standpoint, the record of efficiency is even more startling. Less than 10 per cent of business enterprise continues to operate at a profit for any considerable period of time. These are the challenges which industrial leadership of the future must meet.

This lack of efficiency cannot be charged to administrative laziness. American executives have worked hard, even feverishly, to make of their organizations productive and profitable concerns. For the most part, American executives have been able to provide a high level of productivity when measured in terms of individual employee output but have often failed in a co-ordinated sense. Hard work and the desire to achieve have often been ineffective because incompetence in management has dissipated the gains otherwise attained. Leadership which does not accomplish its objectives does not encourage confidence. The business leader of the future will be handicapped by leadership failures of the past. However, the failure of would-be business leaders will not have been in vain if an effort is made to avoid the mistakes of the past.

Successful business leadership demands broad vision and mature understanding of many interrelationships of interests.

Lack of such vision and understanding is alleged to have been one of the primary causes of past business depressions. Many leading students of economics believe that the shortsighted and selfish policy of business leaders who diverted an undue share of the profits of industry into capital forms for the benefit of minority investor groups was a contributing factor in creating economic maladjustments which characterized the period of 1929-1934.

It is contended that a more equitable division of the wealth produced by industry would have created more satisfactory economic adjustments and would have benefited management, labor, and the consumer alike. Business leaders who controlled capital and who used their excess portion of production income to create new producing units failed to realize that they were thereby flooding a market which the practice itself was destroying. The resultant period of depression was no more profitable to them than it was to labor and the consumer. In fact, capital losses probably exceeded all others and thereby destroyed production facilities which had been created at the expense of labor and the consumer. The business executive must provide a kind of leadership which will prevent the recurrence of such economic maladjustments which, in the end, destroy the values which have been diverted toward their creation. If this is not done, we need not seriously concern ourselves with the problem of the executive in a democracy because there will be no democracy.

Appendix

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EXECUTIVE ABILITY

EXECUTIVE CHECK LIST FOR SELF-EVALUATION

(Text references: Pages 119-127)

Give yourself credit for one point for each odd-numbered question answered "No," and one point for each even-numbered question answered "Yes." Exact standards have not been established for this check list; however, the following ratings may be applied:

Superior	145-160
Good	135-144
Fair	125-134
Poor	115-124
Inferior	0-114

INTEREST TEST

(Text references: Pages 140-141)

Give yourself credit for one point for each answer which agrees with the following key. (Questions marked with * are not scored.)

1. 0	34. +	67. +
2. 0	35. *	68. +
3. +	36. +	69. +
4. +	37. +	70. +
5. 0	38. +	71. +
6. +	39. +	72. +
7. +	40. 0	73. +
8. +	41. *	74. +
9. +	42. +	75. +
10. +	43. +	76. +
11. +	44. *	77. +
12. 0	45. +	78. +
13. +	46. 0	79. +
14. +	47. *	80. +
15. +	48. *	81. 0
16. +	49. +	82. +
17. +	50. 0	83. +
18. +	51. +	84. +
19. 0	52. +	85. *
20. +	53. +	86. +
21. 0	54. +	87. +
22. 0	55. 0	88. +
23. 0	56. 0	89. +
24. +	57. +	90. *
25. +	58. +	91. +
26. +	59. +	92. +
27. *	60. 0	93. 0
28. +	61. +	94. +
29. +	62. +	95. 0
30. +	63. +	96. 0
31. +	64. 0	97. +
32. +	65. +	98. +
33. *	66. +	

Series A, B, C, and D designations have no significance in this test. Exact standards have not been established for the test; however, the following ratings for "executive interests" may be applied:

Superior	70-89
Good	60-69
Fair	50-59
Poor	0-49

PERSONAL APPRAISAL TEST

(Text references: Pages 164-166)

Give yourself credit for one point for each answer which agrees with the following key:

1. 0	21. 0	41. +
2. 0	22. 0	42. 0
3. +	23. 0	43. 0
4. 0	24. 0	44. +
5. +	25. 0	45. +
6. +	26. 0	46. 0
7. 0	27. 0	47. 0
8. +	28. 0	48. 0
9. 0	29. 0	49. +
10. +	30. 0	50. +
11. 0	31. 0	51. +
12. +	32. +	52. 0
13. 0	33. 0	53. 0
14. 0	34. 0	54. +
15. +	35. +	55. +
16. +	36. 0	56. 0
17. +	37. +	57. +
18. 0	38. +	58. 0
19. 0	39. +	59. 0
20. +	40. +	60. +

Exact standards for this test have not been established; however, the following ratings (questions 1 to 60) may be applied to determine ability to direct and supervise the work of others:

Superior	50-60
Good	45-49
Fair	40-44
Poor	35-39
Inferior	0-34

SERIES A AND B

Questions in Series A and Series B groups together (questions 1 to 20) relate to tendencies to lead and control actions of others, and tendencies to think and act independently.

The following tentative standards may be applied:

Above average	15-20
Average	11-14
Below average	0-10

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SERIES C

Questions in Series C (21-40) relate to tendencies toward extroversion and introversion. The following tentative standards may be applied:

Extroversion	15-20
Introversion	0-10
Neither predominantly	11-14

SERIES D

Questions in Series D (41-60) relate to social responsiveness. The following tentative standards may be applied:

High responsiveness	17-20
Generally responsive	15-16
Moderately responsive	13-14
Generally unresponsive	0-12

SAMPLE DISTRIBUTION OF TEST SCORES

(Text references: Page 210)

Data on six tests contained in the Vocational Aptitude Examination on 450 miscellaneous cases including executives, salesmen, accountants, engineers, and research workers are reproduced below to show variations in distributions on different tests in the same examination.

Numerical scores on six tests at different percentile levels

Equivalent Percentile Score	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
90	87.0	82.0	79.5	86.5	86.0	86.5
80	80.5	74.0	75.0	80.5	79.5	79.0
70	74.5	68.0	69.5	74.5	73.0	70.0
60	69.5	61.5	65.0	70.0	68.5	62.0
50	66.5	55.0	60.5	64.5	65.0	54.5
40	63.0	51.5	56.0	58.0	60.5	48.0
30	60.0	45.5	49.5	52.0	54.0	42.0
20	54.0	40.0	43.0	46.5	47.5	35.0
10	48.5	33.0	36.0	37.5	38.5	27.5

EXECUTIVE ATTITUDE QUESTIONNAIRE

(Text reference: Pages 323-325)

Give yourself credit for one point for each odd-numbered question answered "No," and one point for each even-numbered question answered "Yes." Exact standards cannot be established for a brief questionnaire such as this one; however, the following ratings may be applied:

Good	31-40
Fair	26-30
Poor	21-25
Inferior	0-20

OUTLINE FOR THE INVESTIGATION OF DISCIPLINE PROBLEM CASES

(Text reference: Page 421)

Investigations relative to discipline problem cases may be routine, or they may be thorough-going, depending upon the seriousness of the case in question. The following outline is suggested for use in the collection of information for those cases requiring an extended analysis. It is assumed that a complete case record will be prepared which will become a part of the permanent files of the company. If this outline seems too elaborate, it is obviously subject to modification and limitation to suit company needs. Much of the preliminary work in the preparation of case records can be done by a clerical assistant because a considerable amount of the information required will ordinarily be found in the files of the company either in the personnel department or elsewhere.

I. Personal History

- A. Personal information including such items as age, sex, marital status, which appear on the employee's personal record.
- B. Health history: including information from the medical examiner on past and present condition, defects, special treatments, and absence from work due to illness. Supplement this information by any statements the employee may make about fatigue, headaches, dizziness, insomnia, eyestrain, indigestion, and other common sources of complaint. Confer with the medical department on any points that may be raised during the interview that suggest possible mental or physical disorders that have not been previously recorded. Do not attempt to diagnose physical ailments nor give too great credence to the worker's statements about his physical condition. Use the information as a means of determining the employee's knowledge of and attitude toward his own health and physical well-being.
- C. Educational history: include such items as training prior to acceptance of present position, training since employment, and any special study which the employee may be doing at the present time. Future educational plans and intellectual interests may be recorded. It should be emphasized in this connection that an interest outside the man's job is sometimes an aid in making a satisfactory adjustment. Intellectual stimulation draws off energy that might otherwise find an outlet in emotional difficulties; that is, intellectual interests frequently divert the worker's attention from troublesome personal problems. On the other hand, there may frequently appear instances where a worker is devoting so much of his time in preparation for some future type of work through study that he is neglecting the job and exhausting his energy reserves. Many cases of maladjustment can be aided by diverting attention to a hobby or other activity which absorbs attention at times when there is otherwise a tendency to brood over personal troubles.
- D. Work history: The work history should include information about service in the present job and a record of all other types of work the individual has done, either for his present employer, himself, or others. The work history should include ratings by supervisors on general quality of work. The work history should also include citations for meritorious service, demerits, or record of admonitions and disciplinary actions, accident records, and service reports with respect to regularity of attendance and promptness in reporting to work.

II. Personality Investigation

- A. Intelligence. Where possible, secure a record of intelligence as shown by tests. Where this is not possible, make observations and record them as a part of the report. Seek the answers to such questions as:

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1. Is the interviewee alert?
2. Is he attentive in responding to questions?
3. Is there any evidence of an unusual characteristic of attention; that is, does he make extraneous observations, divert his attention from the problem at hand, or persist in repeating and re-emphasizing points brought out in the interview?
4. Does he give a consistent and well-related story?
5. Does he appear to be distractable or over-suggestible?
6. Is there evidence of faulty memory?
7. Are his judgments arrived at logically or are they biased and spur-of-the-moment responses?
8. Does the man's intelligence seem to measure up to the responsibilities of the job he is trying to fill?
9. Is there a possibility that the man's intelligence is greater than is required by the job and causing him to become somewhat disinterested in his daily work?

NOTE: The whole point of questions and observations such as those suggested above is that of determining the intellectual adaptability of the employee to his present job. It is often the case that persons who are forced to over-reach mentally in filling a job become maladjusted, and it is likewise true that a person whose intelligence is not challenged by the work becomes dissatisfied and neglectful.

B. Motor activity: The case should be studied not only in his daily work but during the interview to determine his motor responsiveness. Look for the answers to such questions as:

1. Is he restless or over-active?
2. Is he extremely talkative or uncommunicative?
3. Is his activity steady and persistent?
4. Is there evidence of laziness or sluggishness?
5. Can he change pace—speed up or slow down his movements to meet circumstances?
6. Do his movements seem to be well co-ordinated?

NOTE: It should be observed that in the clinical study of cases, information is sought as a clue to a source of difficulty or cause of maladjustment which may in turn be the reason for the fact that the worker has given cause for disciplinary action. It would be well to remember that in searching for such clues, there is frequently a tendency to over-emphasize what might appear to be symptoms. Behavior does not become symptomatic in maladjustment cases unless it is exaggerated or obsessive. Observations during the interview should be recorded, however, for future reference should the case again be reported for investigation.

C. Temperament: Seek to determine the worker's emotional attitudes and general outlook.

1. Does he appear to have a reasonable degree of control over feelings and emotions?
2. Describe the characteristic mood of the case in such terms as cheerful, optimistic, timid, embarrassed, oversensitive, pompous, depressed, sullen, irritable, etc.
3. Would you describe the case as a well-balanced, well-integrated personality? List any special peculiarities that may be brought to attention.

D. Nervous and mental disorders: Under ordinary circumstances it is not possible for the lay interviewer to weigh evidence and determine the existence of nervous and mental disorders. However, if there is a suspicion of such a condition, it should be referred to the medical department and through them will doubtless be referred to a psychiatrist. The psychiatrist in turn will concern himself in studying the case with certain basic attitudes in seeking evidence of possible neurotic or psychotic tendencies. The common types of mental disorders that are found occasionally among employees are as follows:

1. Dementia praecox. Characteristics: indifference, withdrawal from reality, detached, evasive, and, in extreme cases, delusions of persecution and hallucinations.
2. Manic depressive personality. Characteristics: periods of moodiness, blues, inactivity, and low production alternating with periods of great activity, restlessness, exhilaration, and expansiveness.
3. Psychopathic personality. This classification is frequently used to describe persons who are balanced in most respects but exhibit a marked tendency in one trait. Usually the tendency is toward delusions of grandeur, egocentricity. In general, they exhibit a systematized delusion of personal agency. They believe they possess special gifts not ordinarily found in other people, that they are the agent of God, that they are chosen to reform or remake the world. We have had an opportunity to observe the operation of this type of personality in the recent international developments in Europe.
4. Psycho-neuroses. Many mental and nervous disorders are not systematized to the point that mark the personality and thus permit classification. The psychiatrist finds disorders such as hysteria, neurasthenia, psychasthenia in various stages of development in many cases referred to him. In general, such persons show a strong tendency toward fatigue, nervousness, inability to concentrate, irritability, pessimistic moods, and are subject to frequent recurrence of chronic minor disorders such as dizziness, diarrhea, disturbances of appetite, difficulty in breathing, and muscular constrictions. Often these physical conditions appear to have no organic foundation. This group of cases is ordinarily the most easily dealt with and respond readily to psychological advice. Many of their difficulties grow out of immediate social, financial, and other sources of worry; whereas, in the types previously described, the cause may be far removed in time and may represent a strongly established series of habits.
5. Epilepsy. Epileptics do not always have convulsive seizures. In milder cases the symptoms are recurrent nightmares, dizzy spells, severe headaches, spells of weakness, and a tendency to become violently angry over apparently trivial causes. Their behavior is unpredictable, and correction of faults is extremely difficult—often impossible.

NOTE: The non-professional interviewer cannot and should not attempt to deal with mental and emotional abnormalities. However, he may look for certain characteristics in the employee which may suggest the need for further examination of a psychological nature. It is well to emphasize here that people suffering mental disorders exaggerate traits which all of us display at times to a lesser degree. The traits are not abnormal but the personality is.

E. Interviewer's observations of personality.

1. Facial expression. Does the applicant have a fearful or apprehensive look? Is there a distortion of facial expression not ordinarily found? Also observe instances of the expressionless face, characterized by staring or a set, blank look.
2. Note any movements of the head, face, body, which are rhythmic or repetitive, such as nervous twitching of facial muscles, movements of the hands, biting nails, wringing hands, gestures.
3. General observations. Does the employee speak voluntarily or must he be forced to respond? Notice general physical appearance, apparent attention to care of clothing, and personal cleanliness. Is the employee looking for a listener to hear about his troubles? Is there an apparent bid for sympathy? Notice any unusual responses such as crying, swearing, expostulating, refusal to remain seated, etc.
4. Speech. Describe the effect of the voice; i.e., pleasant, loud, harsh, irritating. Record any evidence of stammering or other speech irregularities; particularly note the point being discussed in the interview if stuttering occurs because this may reveal emotional blocking of response.
5. Attitude toward work. Degree of satisfaction or dissatisfaction and extent of respect for job.
6. Attitude toward authority and associates. Record any evidence of dislike for supervisors or fellow-workers; particularly note statements which would indicate that the employee does not believe he is getting a fair deal.
7. Most interviewees will reveal information about marital relationships, financial status, and home circumstances.
8. Attitude toward self. Is there a tendency to accept blame for faults, or does the subject project blame elsewhere? Is he particularly proud or ashamed of some of his own characteristics?
9. Psycho-neurotic states. Record observations of disturbances and irregularities mentioned above under the heading "psycho-neuroses." Also record any statements made by the subject pertaining to these conditions.

NOTE: No large number of cases investigated will show evidence of marked abnormality. The record for some cases may be sparse, but every case should be observed carefully in order to isolate the few that may need special attention. In most of the cases investigated, the correction of faulty habits and attitudes will be the proper point of attack. Furthermore, the disciplinary action may be the same after the investigation is made as it would have been before. However, detailed study makes it possible for the disciplinarian to reach an intelligent decision.

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